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## GLANDERS IN HORSE AND MAN: EXTRAORDINARY PERIOD OF LATENCY, AND THE STRIKING SIMILARITY IN THE SYMPTOMS OF EACH.

BY EDWARD LYNE DIXSON, M.R.C.V.S., MARGATE, KENT.

THE following account which I am about to give, is so interesting and important that I am of opinion it will not be deemed unworthy of space in the Journal.

At a neighbouring town near here (Ramsgate), a small job-master and livery-stable keeper, the owner of five horses, had a certain horse belonging to a doctor in the town standing at livery in his stables. On October 7th last I was requested by the doctor to examine his horse as to its immunity from Glanders. He stated he had had the horse about two months, and it had always had a discharge from both nostrils ever since he had purchased it (August 5th). He likewise stated that the livery-stable keeper (Mr. Z. C.) was anxious about his own horses, on account of the discharge, he being suspicious. I examined the animal (a chestnut gelding) and found a purulent discharge escaping from both nostrils, associated with a sympathetic enlargement of the submaxillary lymphatic glands. There were no specific indications of Glanders whatever, as I pointed out to the doctor, there being no sign of ulceration of the Schneiderian membrane or any other of those objective symptoms which you would find in that most direful malady. Besides, there having been a total absence of Glanders in this district for some years past made me look upon

the case even with less suspicion, perhaps, than I should otherwise have done; but, as I stated, there being no indicative symptoms of Glanders, I diagnosed the case as one of chronic Catarrh or Nasal Gleet, and at the request of the doctor treated the case from October 7th till the 12th, by dressing the glands with Hydragyrum biniodide, syringing out the nasal passages and giving injections of Iodoform, at the same time administering Ol. lini. in conjunction with stimulants and mineral astringents. On the 12th, the horse showing no improvement, I advised the doctor to get rid of him and discontinued treatment.

We now pass from the 12th to the 19th of October, when one of Z. C.'s horses (a grey gelding) had a staring coat, and exhibited symptoms of Catarrh, there being a discharge from the nostrils, enlarged submaxillary glands, associated with cough. I may here state that, in treating the doctor's horse, I cautioned the men not to use the same stable appliances to Z. C.'s horses, and I fully believe my injunctions were strictly carried out. Having attended Z. C.'s horses previous to the admittance of the doctor's horse, and never having had any illness amongst them before, I looked upon this, to say the least as suspicious; therefore, immediately Z. C.'s grey horse presented these symptoms the doctor's horse was removed at once into another stable, which I believe was isolated, but as I had discontinued the treatment I did not see it in the fresh stable. It was removed on October 19th, the same day that the grey horse presented the above symptoms. I attended the grey horse from the 19th to the 26th of October, and likewise a bay mare, also the property of Z. C. which stood in the next stall. They both presented similar symptoms and were both treated alike. On the 26th the symptoms disappearing and the animals being convalescent, I discontinued my visits, but was again called in about a month later—on November 19th, to see the same grey horse and bay mare. They presented similar symptoms as before, and I left some balls for them and continued my visits up to November 30th, when both horses seemed once more to have regained their usual health and strength, and I had no occasion to call again until the beginning of February of the present year, when I was once more requested to attend.

But I must leave Z. C., his horses and stables, for one moment, and refer to the doctor's horse. It will be remembered I stated that his horse was removed from Z. C.'s stables, on October 19th, after having been in them exactly a fortnight, viz., from October 5th. After its removal I saw nothing of the horse until December 17th, when the doctor again sent for me. He said he had had the horse in full work ever since I last saw him, and the discharge appeared to have increased: but upon examination he seemed about in the same condition as he was two months previous. I again advised the doctor to get rid of him, and re-assuring him that there were at present no indication of Glanders; although what had transpired in Z. C.'s stable since his horse's removal, made the case look somewhat suspicious. Acting upon my advice he eventually parted with the horse about a month after this interview, selling him, on January 17th, to a Mr. J. of this town. I saw it after it had passed into Mr. J.'s hands on two or three occasions, and it still appeared in about the same condition, until one morning, January 30th (or just twelve days after the purchase from the doctor), when he, Mr. J., brought the horse down to me, where I saw it in company with my partner, Mr. Bentley, and we found it badly glandered and farcied. Consequently, the horse had a nasal discharge and enlarged submaxillary gland from the time the doctor purchased it, August 5th, but showing no specific sign of Glanders until this date, a period of nearly six months' duration. Is it possible that Glanders was latent during the whole of this period? The horse was condemned at once. I went to Ramsgate to see Z. C. that morning and told him what had occurred, and that I wished to examine his horses. He remarked that they had been in very good health since I attended them last November, and that he had had no occasion to give them any medicine since the balls I left at that period. I then proceeded to examine them; the grey horse had a discharge and tumefied gland, but he said that had only lately come on again. I said that the livery horse having ultimately died of Glanders made this case look suspicious, and I advised him to separate it from the rest; but, beyond dressing the gland with mercurial ointment and steaming the nostrils, no medicinal treatment was had recourse to. I continued this

treatment until February 13th, when on arriving in Ramsgate I was informed Z. C. was not well. This was on Monday. After this I saw the horse every day, and went to Z. C.'s house afterwards to report to him about the horse. He himself complained of thoracic pain on the right side. I met his doctor on two or three occasions, and we both believed him to be suffering from Pleurisy, and the usual counter irritant treatment was adopted. On Wednesday, February 22nd, I found the grey horse badly glandered, the Schneiderian membrane being ulcerated to a large degree. I condemned the horse, and had to break the news to the poor fellow, who was propped up in bed with pillows. He seemed very weak and low, the pains in his side, however, having left him. Two days after this, Friday, February 24th, I again went to Ramsgate, thinking it advisable to keep my eye on the bay mare. She looked suspicious, and again I went up into the sick man's room, but this time to see a different sight and to behold a spectacle sickening to contemplate. He was in a sitting posture in bed, and directly I entered the room I perceived a slight tumefaction of the eyelids of the right eye, a shiny, tense, red condition of the right cheek, with a pit-like ulcer on the prominent part of the cheek-bone; there was also a similar ulcer (which I at once recognised as a glander ulcer) on the left side of the septum nasi. He drew my attention to the swollen condition of his face, and said he thought he must have got Neuralgia or caught a cold. I could not summon up sufficient courage to communicate my suspicions either to himself or wife. I went next day, Saturday; there was intense tumefaction of the eyelids of both eyes, so much so that the poor fellow could hardly see. I also noticed more ulcers, and a few pustules on the forehead, and the nose and nasal passages were commencing to swell rapidly. I then asked the wife what the doctor had said. She said, "The doctor says it is blood-poisoning." I asked her whether he was aware her husband had had Glanders in his stable. She answered in the negative. I then had the painful duty of communicating to her that her husband was undoubtedly glandered, and that I should like to meet their doctor. I wrote to him, and we met; subsequently all the doctors in Ramsgate saw him. I called again on Monday and Tuesday;

the poor fellow died in fearful agony on Wednesday, March 1st. The symptoms on Monday, Tuesday, and Wednesday were most appalling. The head and face were swollen to an enormous extent—in fact, almost to twice their natural size, the cheeks and forehead being tumefied to such a degree that they came in contact with each other, totally closing the eyelid, so that vision was perfectly impossible. On the Tuesday he became quite unconscious, talking about horses the whole time. The nasal passages were so swollen that each orifice looked almost as large as the mouth of a wine bottle, they being blocked by a mucus and purulent discharge, which was continually running down under his chin. The function of respiration was entirely carried on through the mouth. The septum nasi was extensively ulcerated on each side. There were numerous pustules over the neck and face, and a conglomeration of ulcers under the right eye. Pustules and chancrous ulcers broke out at the last right along the course of the lymphatics of the extremities, and the side of the chest, where the mustard was applied at the commencement of his illness, became gangrenous and ulcerated. Never could I have pictured so pitiable and loathsome a sight. To conclude the calamitous event, Glanders became visibly marked in the bay mare on the very day the poor fellow died, and she was condemned and shot at once. The three remaining horses of Z. C.'s are under lock and key by the police authorities, and are to be under quarantine for one month; but after these cases how is it possible to specify any particular length of time, when the disease will exist so long dormant and exhibit such a long period of latency as in these cases? for the deductions I draw are as follows:—

Firstly, that the doctor's horse must have been glandered in October when in Z. C.'s stable, although there were no specific symptoms of the disease until Jan. 30th, when it was destroyed; and, further, I am of opinion that there must have been latent Glanders at the time the doctor bought the horse at the commencement of August, thus showing an extraordinary period of latency of six months.

Secondly, that Glanders is transmissible from one animal to another when that disease is latent in the system, and before

there are any outward visible signs, which are so characteristic of the disease.

Thirdly, the incredible length of time that latent Glanders existed in the man. He gave no medicine after the balls I left at the latter end of November, to either the grey horse or bay mare, at which time one of his men distinctly remembers him scratching his hand in giving a ball to the grey; consequently, he was inoculated when the disease was latent in the horse, and showed no symptoms of Glanders himself till three months, as near as possible, after that inoculation.

I trust this, if of sufficient interest, will elicit opinions and communications on this most important subject from men who have had more experience than myself, and who are better able to judge whether such a long and incredible period of latency is possible in man or the lower animals, as appears to have existed in the cases I have recorded.

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## ABNORMAL DENTITION. PROCIDENTIA RECTI. TUBERCULAR STOMATITIS. FŒTAL TUBERCULOSIS.

BY A. E. MACGILLIVRAY, M.R.C.V.S., BANFF, N.B.

1. *Abnormal or Deficient Dentition.*—Within the last six months I have met with three very interesting cases of this sort. The first case occurred in September last, in a heavy bay cart-horse, four years old. He was brought to me late one night to have two of his "milk teeth" (deciduous incisors) taken off. On examination I found, to my great surprise, that the deciduous *pincer* and the *intermediate* incisor of the near side of the lower jaw were still *in situ*, and that there was no sign of any permanent incisor to occupy their place. I remonstrated about removing these abnormally present deciduous teeth; but the owner said the horse had been sold that day, and the purchaser had positively ordered their removal that night. I accordingly took them off.

A week after I found no signs of the looked-for permanent incisors; and three weeks after, as there was still no appearance

of "horse teeth," as the purchaser called them, he refused to take delivery of the horse! The breeder consulted his law agent, who gave his opinion that, as only the owner and his son heard the purchaser's order to have the two teeth removed, it would be as well to let the sale lapse.

Ultimately, about two months after, the horse was sold to another party for the same money as to the first purchaser. No permanent *pincer* and *intermediate* incisor, however, had appeared.

The second case occurred in a horse, three years and seven months old. In this instance the off-side deciduous pincer in the upper jaw still remained; and, as it was supposed to be interfering with mastication, I was ordered three months ago to take it off. I did so, but up to the present time no permanent pincer has taken its place, nor ever will, in my opinion. About three weeks ago I was again asked to attend this horse, and remove the deciduous intermediate incisors. On attending, however, I only removed the near-side deciduous intermediates, as I saw no appearance of permanent intermediates on the off side. At the present date the near-side permanent intermediates are well up, but there is not the slightest sign of any such, either above or below, for the off side.

The third case occurred about three weeks ago, in a two years old pure short-horn bull. On examination, I found that the two pincers and the first intermediates had all been shed, but that only one permanent incisor, the near-side pincer, had come to light: it was well up. On calling again, a fortnight after, about a week ago, I found no sign of a permanent pincer for the off side, and no near-side first intermediate, but the off-side first intermediate was well up. So that this bull shows a deficiency of two permanent incisors, namely, the off-side pincer and near-side first intermediate. I saw him again yesterday, and found these two permanents still absent.

I should be glad to know if such cases are often met with by other members of the profession, as with myself they are quite the reverse.

2. *Procidentia Recti in Swine.*—Among a certain class of the veterinary profession the idea of porcine practice may be scouted,

and even considered *infra dig.*, and in general it must be confessed that one would rather be without than with this class of patients; but the exigencies of country practice must be grappled with, and so it happens that even in a "pig patient" we may at times save a valuable life.

Prolapsus recti is not at all uncommon in young pigs, and, paradoxical though it may appear, is generally either the result of diarrhœa or constipation. I have also met with it in aged swine, and will at present relate one such case, and at the same time note a rather curious instance in a young pig.

About a month ago I was asked to see a sow whose "bed" was said to be coming down—not at all an unusual occurrence. On attending, however, and examining the sow, I found it was a protrusion of the rectum, and not the uterus, with which I had to deal. The greater part of the rectum was outside, was much swollen, infiltrated, and unfortunately severely torn in two places. A considerable amount of hæmorrhage had taken place from the torn parts. Having with great difficulty secured my patient in a proper and convenient position, I thoroughly bathed the protruded rectum with warm water and soap. I then reduced the prolapsus; and, finally, I inserted two strong metallic sutures across the dual opening, thus completely preventing a relapse of the procidentia. The sutures were extracted at the end of twenty-four hours, and no recurrence took place.

In the young pig (two months old) the prolapsus had been present for about ten days, the protruded part of the rectum being quite hard, ragged, and inflamed; there was also almost continual tenesmus. In this case, before operating, I thought it necessary to have my patient isolated and kept without food for twenty-four hours, at the end of which time, or about thirty hours, I found that the prolapsus had almost disappeared inside —a fact which seems to me to point to over-feeding as a chief cause of procidentia in young pigs. I inserted a couple of metallic sutures as in the former case, and restricted the diet to thin milk gruel. Twenty-four hours after, the sutures were withdrawn, and complete recovery ensued.

In all cases of prolapsus recti, I think it necessary to smear the mucous membrane of the rectum with carbolized

Ung. Zinc. Oxid., which alike soothes and heals the irritated parts.

3. *Four Cases of Tubercular Stomatitis.*—Within the last four or five weeks I have met with four instances of this peculiar affection of the mouth in cattle. In the first case, a calf, the diseased deposit took place in the palate, "roof of the mouth" as the owner called it. The treatment successfully adopted was simply repeated dressings with Ferri Sulph., commonly called *copperas*.

The second case also occurred in a young calf; it was a twin, and was removed from its mother to a neighbouring farm to be suckled by another cow. About four weeks afterwards a discharge of ropy saliva began to dribble from its mouth; this led to an examination of the latter, when a pretty large, yellow, cheesy deposit was found about the middle third of the tongue, inclining to the off side. My attention was immediately requested, and I ordered the deposit to be well scraped out, and the remaining sore to be repeatedly dressed with a very strong solution of Cupri Sulph. and Acid. Carbolic. Recovery quickly ensued.

The third instance happened in the cow which was suckling the above calf; and in her the diseased deposit also took place about the middle third of the tongue, but inclining to the near side. The same treatment was adopted as in the calf, and is likely to be successful. Query: Did this cow contract the disease from the calf through the medium of the ropy saliva which was continually dribbling from the calf's mouth?

The fourth case occurred two days ago, in a ten months old stirk. The diseased deposit was about the roots of the incisor teeth, with swelling of the lower lip, etc. I scraped away all diseased material, leaving a red, raw, ulcerous-looking sore behind, which I ordered to be dressed twice a day with the copper and carbolic lotion as above.

At the farm where the calf and the cow were affected, I have had cases of the same disease before; and Tuberculosis, although not rife, has now and again manifested itself in the same stock. The latter disease has also occurred at both the farms where the other two cases (in a calf and a stirk) of Tubercular Stomatitis appeared. I offer no other comments on these cases.

4. *Tubercle in a Five Months' Fœtus.*—On the 26th December last I attended at the slaughtering of a two years old quey, nearly five months gone with calf. Owing to tubercular enlargement of the parotids, and signs of incipient pulmonary Tuberculosis, I considered it advisable, as the quey was in prime condition, to have her slaughtered. I found very extensive tubercular deposits in the parotid glands, and the same disease well developed in one lung. I took the fœtus home with me for more particular examination than could be had in a public slaughter-house, but the only abnormality I observed was a few tubercles in the liver. I searched minutely all the other glands and lungs for tubercle, but found none. The presence of the tubercles in the liver, and nowhere else, is easily explained by the prominent position occupied by the liver during fœtal life. The other glands and lungs are, in that stage of existence, only of comparatively secondary importance.

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## RABIES.

BY HAROLD LEENEY, M.R.C.V.S., ETC., BRIGHTON.

IN offering a few remarks upon this subject, I feel a certain amount of diffidence, since it has been so ably and so often treated of, and especially by the editor of this Journal. His request that I should say something about it, is therefore my excuse.

During the past five months the extraordinary number of thirty-five cases of undoubted Rabies has occurred in my practice, besides some others in the neighbourhood which I have not seen, and therefore offer no opinion upon.

The previous four years only afforded three cases, but such a number would, of course, be sufficient to propagate the malady, and account for a sudden increase of it at this time, by which I mean the last few months; and I mention this for the reason that, when cases crop up all around, one is led to think that Rabies may arise *de novo*, and this opinion meets with much confirmation from the circumstances of individual cases in which the owners—conscientiously, no doubt—think that they

are able positively to swear that their dogs have never been bitten, or, indeed, ever out of their sight, one of the chief dangers to the owner oftentimes being his incredulity as to the real condition of his dog.

I regret to say I have not kept a strict account of these cases, but I propose only to speak of the difference in their manifestation.

The majority by far were only brought to me when the mouth had been kept partially open for a day or two, and the owner had made ineffectual efforts to find some foreign body in the throat, and at last sought my assistance to remove it. In only two cases was the real nature of the disease suspected, and one belonged to a surgeon, the other to a breeder.

Nearly every case differed in some respects, but *three* only did not drop the jaw, and every one of the whole thirty-five were able, and did, give vent to that peculiar howl so well described in the "Witch's frolic":—

> "It is not a bark, loud, open, and free,
> As an honest old watch-dog's bark should be;
> It is not a yelp, it is not a growl,
> But a something between a whine and a howl."

Although their mouths appeared fixed half-open, they were one and all able to close them, except during the last stage, when general paralysis supervened.

The tendency to bite at some period was present in about one-third of the number, and was as often a first symptom as a later one—seeming, in some cases, to be only the natural irascibility and snappishness so often displayed in dyspeptic old house-dogs if disturbed from their senile reveries; but this increasing snappishness leading the owners to think them not well.

In the case of a collie belonging to a friend, I was twice consulted, but could see nothing whatever to indicate ill health, or a departure from normal functions. He ate, drank, and slept well, but would snap at any one who passed on the hearthrug, unless they did so in a particular manner, suited, as I suppose, to his ideas. This dog followed his owner in my dog-cart all one afternoon, and showed all that boisterous mirth the breed are so

capable of demonstrating—barking, racing, and appearing to take the greatest pleasure; but having been informed of his snappishness, he was shut in my kennels that night for moral satisfaction to the owner and myself. The *next day* the mouth was apparently fixed open; the eyes had that peculiar livid appearance, the tongue swollen and purple, and the woodwork of the apartment rapidly undergoing demolition. Thinking the gnawing had been done previously to the dropping of the jaw, I watched this animal, and saw him again and again gnaw the woodwork. This, and many cases since, have led me to question the existence of a "dumb-madness" at all, for when kept alive and watched, as I have before intimated, *every one* made this sound; they all *could* close the mouth; they all but three did keep it open when once they had begun the habit. The reason of the mouth being open appears, from my observations of these cases, to be solely due to the swollen condition of the tongue and fauces, and not from any paralysis of the jaw assignable to pressure at the origin of the nerves supplying its muscles.

I am particular to state that all these dogs *could* and *did* howl, although they had what is called the "dumb" form, and should, according to Professor Williams, be "unable to bark or howl."

Thirst was not an invariable accompaniment, if this may be assumed from the fact that some did not make any effort to drink. The absence of anything like a morbid appetite was remarkable in several instances. In the case of a fox terrier belonging to a veterinary student, nothing was observed (and the gentleman in question is a good observer) but a little huskiness, leading to the supposition that there was ordinary sore-throat, until Tuesday last(February 22nd), when his jaw dropped, and he gave vent to the peculiar howl of rabies. The day before this dog had lain upon the floor in a room with me for a whole hour. He refused water placed by his side.

In seven cases vomiting took place, and these animals lived longer than the others.

In publishing the foregoing, I do not wish to question the more-carefully tabulated results of other and better writers, but I wish especially to ask my professional brethren to be more than ever guarded in handling dogs for the first time, since I

have run so much risk in handling animals without any symptoms whatever of disease, but afterwards learnt their condition. Nothing has been said in many cases to give one a clue as to the malady, or what to expect upon arriving at a "case;" and questions, as we all know, are generally answered in the manner the servants—and too often our clients—think we *want* them answered. Twice I have been called to large dogs, who have jumped up on me, uncertain whether to give a caress or a snap, and if this is not likely to establish a "funk," and increase the danger, I don't know what is. I am sorry to have to add that besides one death from Hydrophobia already reported, four other persons have already been bitten to my knowledge.

The period of incubation in the foregoing cases of Rabies was not, of course, explainable in the great majority, but in two cases it was proved to be only *two* days, and in another only five days.

Of the first ten or twelve cases, I sent three for *post-mortem* examination, and one alive to the Royal Veterinary College, Professor Robertson confirming my diagnosis.

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## EPIZOÖTIC GASTRO-ENTERIC FEVER.

BY L. BUTTERS, M.R.C.V.S., LIVERPOOL.

TOWARDS the end of last year, and up to the present date, the horses of this and several other large towns in the district have been attacked by what I will call, for want of a better name, a very severe form of Influenza Fever; and as many of the cases which proved fatal presented *post-mortem* appearances which I have never seen described by veterinary writers, perhaps a short account of the symptoms, etc., as I have observed them would be of some interest to the readers of your valuable Journal. The designation of Influenza Fever is rather a vague title, as the affection partakes more of a gastric or typhoid nature, and I have accordingly attempted to give it a name as above. It has been called by the public generally and by the newspapers, "Pink-eye," or the "American Disease." Amongst our stud of

about 2,100 horses, about 200 have been affected, a large number of these being new, unseasoned horses, and in them the symptoms were more severe. The disease is highly infectious, and shows itself very rapidly, an animal being in perfect health one day and prostrated with it the day after. I have noticed this in a large number of cases. The symptoms are:—Animal exceedingly dull and dispirited; quick, weak pulse (at first); great swelling of the eyelids, and watery discharge from the same; conjunctival membrane highly congested, presenting a dark red colour, sometimes with a yellow tinge, giving rise to the name "Pink-eye"; constipation, slimy fæces, and great loss of appetite. In two or three days diarrhœa sets in, and in most cases this is a favourable symptom, recovery dating from this time; but in other cases it is again followed by constipation, the fæces presenting the same appearance as before. This goes on alternately; the animal loathes all food, wastes rapidly, the membranes becoming of a deeper colour. About this period, in most of my cases, the lungs have begun to be affected, but the respirations are not very quick, and give no idea of the state these organs are found to be in on making a *post-mortem* examination. This is accompanied the whole of the time by a constant discharge from both nostrils, and, strange to say, the pulse drops to about its normal standard, and has more strength; but the animal gradually wastes and dies; towards the end the breath having a fœtid smell, accompanied by a furred tongue, with congested patches on the under surface of that organ and on the buccal membrane, and sloughing of the epithelium. As a rule the lungs show no signs of being affected until several days after the disease has been established; and all the fatal cases I have had have lingered on for five or six weeks after being first attacked. In no case have I seen the respiration very frequent, the breathing only being a little above the normal standard. The temperature ranges from 103° to 105°, and in one or two cases reached as high as 106°. On making a *post-mortem* examination, the principal lesions have been found in the stomach, large intestines, and lungs, the former organ being a mass of ulceration, small, pit-like ulcers being over the greater portion of its surface, with great thickening of its walls, the

villous portion being very much congested. The same appearance is also found in the colon. In one or two instances I have seen, there was one or more large ulcers, and in a very fine specimen shown to me by Mr. T. Simpson, F.R.C.V.S., and now preserved by him, there is an ulcer about three inches long and two inches broad, presenting a similar appearance to the woodcut representing a specimen sent by Mr. T. Taylor, of Manchester, in the latest edition of Professor Williams's work on "Veterinary Medicine." The lungs present a very bad appearance, being highly inflamed, and infiltrated with purulent matter, the formation of small abscesses having taken place, and in some cases the inner surface of the pericardium has been inflamed, with fibrinous deposits upon it and on the surface of the heart. The disease is not altogether new to me, as I remember it here about ten years ago; and in the *Veterinarian* for, I think, 1876, is a short account of the same, sent by me; but the symptoms slightly varied lately, the lungs not being complicated then, and the ulcers being found more in the large intestines than in the stomach. It seems more fatal to heavy draught horses in good condition than to light harness horses, as a rule, the mortality having been very great amongst them.

With regard to treatment, I may say that with the horses under my care it has principally consisted of good nursing. I have never administered any potent drug; in fact, I may say that with regard to medicine it has been *nil*, as I have given nothing but a drachm or two of nitrate of potash in the animals' water, well-boiled oatmeal gruel, and plenty of boiled linseed, a handful of scalded oats, and a little good long hay. One of the most remarkable symptoms I have noticed is that the pulse has dropped to about forty-four beats per minute, and has been distinct and full to about forty-eight hours before death. I may add that I have never seen a disease so highly infectious. In one stable of 260 horses, one was attacked with the disease, and ten days afterwards 40 were affected; in another stable 48 were affected in about the same time, and a horse that I drove, after one visit to an affected stable, was in perfect health that evening, but the following morning he had the disease in its most severe form. I am glad to say we have seen the worst of it in this

## CASE OF SUCCESSFUL LITHOTOMY IN A MARE.

BY JOHN FREEMAN, M.R.C.V.S., HULL.

THE subject was a handsome ladies' pad, eight years old. I, with the assistance of my brother and Mr. D. R. Sowerby, M.R.C.V.S., Hull, operated on the mare, and was successful, after great difficulty, in removing a calculus weighing 11½ ounces, ten inches in circumference, two inches in diameter, and bun-shaped. It appears to be composed of thousands of small stones, the size of mustard-seeds, compactly adherent to each other. The stone was firmly attached to the coats of the bladder by fibrinous bands, which rendered the removal extremely difficult. This day (13th March) the mare is perfectly well.

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## LOODIANA, OR ANTHRAX IN INDIA.

BY J. FERRIS, F.R.C.V.S., A.V.D., ATHLONE.

THIS subject has been discussed at length by our learned President, and Mr. Lambert, principal veterinary surgeon to the forces, Natal, has furnished an interesting report of his experience of the disease. But as I have seen the malady in many parts of India in the horse, and my mode of treatment was often successful, it may prove of some service to our Indian readers especially, if I give an outline of the course pursued.

Sanitary science will materially assist us as to the remedial measures to be adopted. At the first outbreak of the disease, it is most important to isolate the infected animals, and to move the healthy ones some distance from the place where the disease was contracted; if stabled, they should be moved out into the open air. The infected animal being isolated, we proceed to examine it. If the disease only extends to the head and throat, there is a fair chance of its ultimate recovery. The symptoms in such cases are as follows: the mucous membranes injected, the head, and especially the glands under the jaw, neck, and surrounding tissues swollen; the unmistakeable yellowish discharge from the nostrils; more or less difficulty in deglutition; the pulse and respiration accelerated. Steam nasal passages, and

apply fomentations continually to the head and throat; care should be taken to maintain a comfortable temperature in the body and limbs. Although the patient will not eat much dry food, it will generally drink a quantity of gruel. Give Ol. tereb. ʒijs in gruel three times a day. I have found this simple treatment very frequently successful; so much so, that at one time I was almost inclined to believe that the turpentine was a specific, but I found that my success in dealing with the cases depended in a great measure upon the organs attacked. I have found the turpentine also efficacious when the lymphatics of the hind extremities are involved.

Fortunately, this malignant scourge more often affects the superficial glands of the throat and neck; if the swelling continues to increase until the horse is in danger of suffocation, tracheotomy may be successfully resorted to, but nine cases out of ten generally die, when this becomes necessary.

When the digestive organs are implicated, I have found large doses of the solution of aloes effective in the early stages. It must be borne in mind that the debility of the patient is extreme; therefore tonics should be given, and I have found nothing better than sulphate of iron for this purpose, and an entire change of food, if possible, is very desirable.

I have seen the disease occur in its worst form when the animal is rapidly gaining flesh, after having been suffered to lose condition. These cases are very often fatal, as the malady generally attacks the respiratory and digestive organs. The animal is also subject to the disease when falling away in condition. These are generally milder cases, and more readily yield to treatment.

I have seen the disease break out in badly-ventilated stables, and, as every other arrangement appeared all that could be wished, and the removal into the open air prevented fresh cases from occurring in most instances, I think I am justified in attributing the outbreak to that cause.

Much has been said about the drainage and saturated floorings in stables as another cause, and it is an undoubted fact that cleanliness is always of the utmost importance in contending against diseases generally, especially in hot climates.

From the foregoing remarks it will be observed how very necessary it is to pay the strictest attention to the condition, stable management, and sanitary measures generally.

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## THE TONIC OF THE FUTURE.

BY W. MAYNARD, M.R.C.V.S., ROMSEY, HANTS.

DURING a long experience of active practice nothing has occasioned me greater anxiety in the welfare of my patients than the absence in the hour of need of a really reliable tonic; and in cases of great prostration, and extreme debility after severe illness, this is especially so.

I have tried every conceivable drug classed as a "tonic," from the expensive "vegetable" quinine to the cheap "mineral" sulphate of iron, with the invariable result that the patient, after being successfully pulled through an acute disease, has slipped through my fingers and sunk from sheer debility.

About two years ago a preparation of quinquinine and dialyzed iron was introduced to me by my druggists, as possessing marvellous restorative and tonic properties.

Eager to try anything when everything previously had failed, I ordered a small quantity, with a certain amount of suspicion as to its worth.

Just at the time I had a valuable Saint Bernard pup under treatment for distemper, and as its prostration was so complete, and debility so apparent, I thought it would be a good case to try it upon, at any rate.

When the preparation reached me my patient was literally dying, and its life seemed not worth five minutes' purchase; but a dose of the quinquinine mixture was administered, and during the day three more doses, and the dog showed unmistakable signs of improvement.

On the early morrow I made a visit, and was surprised and delighted to see that a great change for the better had been made during the night.

The dog, who had hitherto refused all the most tempting dishes, positively ate some porridge and gravy with evident

relish. The temperature previous to prescribing the mixture was 105°, but now was reduced to 100°, and later in the day was normal. The patient made much improvement each succeeding day, until at the end of the week he was running about as well as possible.

Equally satisfactory cases in foxhound puppies have since come under my treatment.

A short time ago, a valuable stud of horses suffering acutely with Influenza in the typhoid form were numbered amongst my patients.

When the proper time came I determined to prescribe the quinquinine compound. I did so, and each animal made a good recovery in an incredibly short space of time.

Another case I made a special note of was that of a cow suffering acutely from pyæmia, produced by the exhaustion of parturition. Febrile disturbance was very great, and the temperature most alarming. Repeated shiverings and copious and very unnatural discharges from the bowels added to the anxiety of the case. The quinquinine mixture was administered in ounce doses, and the patient—seen six hours afterwards—was chewing the cud, and appeared quite comfortable. She made a speedy recovery without a bad symptom.

Several cases of "Black-water" have also been treated with marked success.

For the guidance of those of my readers who may not have yet met with quinquinine, the basis of this valuable compound, I may tell them that therapeutically it is of greater value than quinine, and at one-third the price. It contains the whole of the five alkaloids of the officinal cinchona bark, and has long been in use by the sister profession, and much appreciated by it. Itself of great power as a tonic, its virtues seem to be enhanced to a superlative degree by the happy combination with it of dialyzed iron, a preparation far and away the best mineral tonic we possess. Soluble to a degree, it is rapidly absorbed in the blood, and, in conjunction with quinquinine and the other tonics of the preparation under notice, I unhesitatingly declare that it will be the tonic of the future.

## SPONTANEOUS RECOVERY FROM TRAUMATIC TETANUS.

BY W. GREEN, VETERINARY STUDENT.

A SHORT time ago I was requested to look at a grey horse, aged, which, I was informed, had badly broken knees, with a large piece of skin rolled up at the top of one of the wounds. On examining this knee I declined to accede to the proposal that I should cut off this piece of semi-detached skin. When the horse was moved round in the stall I observed that he did so very stiffly, and on further examination I found he was affected with Tetanus. The owner had just purchased him, and had not yet paid for him. I recommended that the vendor should be applied to, and the horse returned to him, if possible, and desired to be informed if this was not done. I heard nothing further until three days afterwards, when I saw the owner, who stated that he still had the horse in his stable, that the animal could not open his mouth more than about an inch and a half, just sufficient to enable him to feed a little, and that he was very stiff all over. He would not have the horse submitted to medical treatment. I had previously advised as to the wounded knees, which, it was intimated, were healing up well.

About two days subsequently I saw the horse being led about in the street, for exercise—"to walk off the stiffness," as the boy who was leading him said. His owner had blistered the throat and sides of the chest with mustard. In a few days after, I accidentally found the horse in harness, certainly going very stiff, but looking fairly well, and the jaws more relaxed. Since then I have ascertained that the animal is at work every day, is not nearly so stiff, though perceptibly so.

Is not this rather peculiar treatment for Traumatic Tetanus, and a somewhat unusual termination of the disease? I may mention that the knees had been injured about a week before I saw the case.

[The treatment was certainly peculiar, and scarcely to be commended; while the fortunate termination was scarcely to be expected under the circumstances. Traumatic Tetanus is always a most serious condition, and the few successful caseswe have

had were those in which very little medicine, if any, was given; absolute quietude and darkness, with oatmeal or flour gruel in a pail constantly before the patients, being the only treatment, beyond attending to the injury if absolutely necessary.]

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## VETERINARY PHARMACY.

BY "PHARMACON," LIVERPOOL.

PERHAPS there is no department of knowledge bearing directly on the every-day practice of the veterinary surgeon, which has received so little attention and is more in need of reform than veterinary pharmacy. Pharmacy has aptly been called the handmaid of medicine, and the efficacy of many medicinal substances depends in no small degree on the form of their administration. This being true, is it not high time that the profession should set about reforming a subject which, to say the least of it, is in a most unsatisfactory condition, and on which, in the treatment of disease, so much depends? Excellent as our few literary works on *materia medica* are, the sections on pharmacy are not satisfactory; they do not meet the requirements of the practitioner, and are ill-adapted to the present advanced state of veterinary science. Great and rapid strides have lately been made, and in an age of progress such as at present, I think the subject of this paper is deserving of the early and careful consideration of the profession.

We, as a profession, occupy a somewhat awkward and undesirable position in the selection of medicines we may wish to prescribe; we have no uniform standard and guide whereby to ascertain and determine the composition of substances we daily employ. Some are prepared according to published formulæ, others according to the private recipe of the manufacturer, and some according to the British Pharmacopœia. Up to the present, no attempt, save one, has been made to remedy this defect, and that by a private individual; but private publications, however complete, can never have the same weight and value as one prepared in accordance with the general wishes of the profession and

published under authority—or in other words, an official publication.

The work above referred to, excellent as it in many respects is, would, in the writer's opinion, lose nothing, but gain much, by the combined efforts of a practical veterinary surgeon and pharmacist; many of the formulæ could with advantage be modified and altered, and the purely pharmaceutical portion of the work receive improvement wherein it is deficient. We next come to the "British Pharmacopæia," and the question which confronts us is,—Does this work not meet our requirements? To which I have no hesitation answering in the negative, and I think there are few practitioners who will think otherwise. Excellent as the "British Pharmacopœia" is, and admirably as it fulfils the mission for which it was prepared, it cannot, I think, be said that it meets the requirements of the veterinary surgeon. Many of its formulæ are of inconvenient strength, contain unnecessary auxiliaries and correctives, which consequently render them unnecessarily and uselessly expensive (a matter of some importance in veterinary practice). Many preparations required by the veterinary surgeon are not to be found therein, and others which are not required find a place; much might be said on these various points, but this is neither the proper place nor time. If the question should come to be dealt with by the profession generally, "Pharmacon" would willingly offer his ideas and opinions, with other members. Supposing, then, that the foregoing remarks are well founded, how is the difficulty to be met? This is a question for the profession generally to decide. The author, however, thinks that the whole profession should be consulted, and an official publication issued under the direction and with the authority of our governing body, the Council of the Royal College of Veterinary Surgeons, which would as far as possible provide for and meet the wishes of those engaged in the practice of veterinary medicine and surgery.

It may be argued that pharmacy is best left in the hands of chemists, and from this view the writer does not differ, believing, as he does, that from their daily avocation and special training they are best able to deal with matters purely pharmaceutical. But we, as a profession, should direct and advise as to the require-

ments necessary for the successful practice of our calling, and solicit the aid of that invaluable physician's friend, the pharmaceutical chemist, whose aid I feel sure would be readily accorded; and while we make known our requirements, the pharmacist would direct the best means of obtaining the most reliable and satisfactory therapeutic preparations, and thus bring about a necessary reform in one branch of knowledge included in the practice of veterinary medicine and surgery.

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## OPIUM POISONING IN THE HORSE.

BY M. J. TREACEY, M.R.C.V.S., LANCASTER, PA., U.S.A.

THE following case recently occurred in my practice, and not having seen a similar one recorded, I think it may prove interesting.

On my arriving home, being absent all day, on the evening of January 3rd, I was requested to attend at a stable where a horse had "gone crazy." I found my patient, a fine six-year-old gelding, about 1,200lbs., in a loose box, with his head pressed against the wall, his limbs describing automaton movements, as if walking; his ears became erect at the slightest noise, body covered with sweat, pulse soft, full, and 70, respiration 78, and temperature 101°, caloric of extremities good, pupils much dilated. Occasionally the nose would be extended upwards against the wall as far as he could reach, and be kept in that position for some moments. The disposition to go forward was so remarkable, that in the treatment, where active exercise was ordered, two men each side could scarcely restrain him to a walk, and when they wished to stop him they could only do so by allowing him to press his head against a solid body, when the movements of his limbs commenced again. He was mean and ugly to approach.

*History.*—Been treated for intermittent colic all day in my absence, and had several drenches, the contents of which I could not learn.

*Diagnosis.*—Opium poisoning.

*Treatment.*—Ice to the poll, small doses of æther, ammonia, whisky or gin every hour, large doses of coffee, half-an-hour's

exercise in the cold air and stable alternately, and a liberal supply of cold water, of which he partook plentifully. All those symptoms became aggravated until midnight, when he trotted a four minute gait, pressing his head so forcibly against the stall as to threaten its destruction. Hoping against hope, I continued this treatment all night, and in the morning my patient was convalescent. He went to work in twenty-four hours, and, with the exception of being nauseated next day, apparently none the worse for his severe illness.

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## Editorial.

### THE ADVANCEMENT OF MEDICINE BY SCIENTIFIC RESEARCH.

THE astonishing progress made in medicine and surgery in recent times has been due to various causes, each operating from a particular direction, but all concentrating their influence upon the elucidation, prevention, and cure of disease. Of all the influences, however, to which the rapid advance may be mainly ascribed, it must be admitted that experiment holds the first place; for until the experimental method of research was introduced into medicine, very much indeed of what is now fact was merely hypothesis, and a multitude of physiological and pathological processes have been ascertained, and the knowledge so gained utilised to the most advantageous extent for the benefit of animals and mankind. The value of this method of research can scarcely be over-estimated, and it is all important for the future of medical and sanitary science—human and veterinary—that it be continued and developed to the fullest degree. At present it stands in somewhat of peril, from the well-meant but misguided attempts of persons who have little or no acquaintance with medicine or its aims and requirements, and are mainly governed by sentiment, not by common-sense. They mistake the abuse of the experimental method for the use of it; and while it will not be denied that what we consider cruelty has been perpetrated by biologists, physiologists, and others in the name of science—though rarely, it may be presumed in this country—yet that is no more a reason for suppressing experiments on animals, than would the maltreatment to which horses are only too frequently subjected be a plea for their non-employment as our servants.

But all arguments are lost on the anti-vivisectionists, who will have nothing but the total abolition of experiments, and are moving most energetically and determinedly towards the accomplishment of their object. Should their efforts be crowned with success, a most serious blow will have been inflicted on medical science. These spurious

zoophilists think nothing of the pain, agony, and misery caused by diseases which are incurable, and the nature and prevention of which can only be elucidated by means of experiments on animals. So the time has now arrived when men of science must band themselves to protect the interests of men and animals, in so far as the promotion of researches in physiology, pathology, and therapeutics is concerned. The law already in force is amply sufficient to guard animals from vivisectional cruelty, and now scientific men need protection. It is therefore with much satisfaction we note that an Association for the Advancement of Medicine by Scientific Research is about to be established, and from the draft of the proposed rules which has been submitted to us, we have no doubt that it will greatly promote the advancement of scientific medicine and surgery. It will not be established a day too soon.

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## VIVISECTION AND THE DISEASES OF ANIMALS.*

In venturing to join in the seemingly never-ending discussion of the lawfulness of vivisection, I may say at once, with the object of defining my position, that I abhor cruelty to animals in any form whatever, and by whomsoever inflicted. Cruelty—*i.e.*, production of unnecessary pain or suffering—has ever been to me a source of discomfort, disgust, or anger; and for now more than a quarter of a century I have done all I could, as a veterinary surgeon and lover of animals, to ameliorate their condition, suppress cruelty in every form, and render their existence as pleasurable as was compatible with the services demanded from them.

That a fearful amount of useless and wanton animal suffering is daily and nightly inflicted, no one for a moment can deny. In our streets, cattle-boats, markets, slaughterhouses, and everywhere around us, we meet with cruelty in many forms and in variable degrees; though we are so accustomed to it that, unless it is a flagrant case, it rarely attracts attention. It is not uncommon to see a cabman vivisecting his horse by means of his whip, without a word of remonstrance from the lady or gentleman in the cab; or a half-drunken drayman belabouring his horses about the head with the butt-end of a whip, or kicking them on the legs or belly, without any passer-by attempting to interrupt his enjoyment.

* The vivisection question, discussed now for so many years in this country, has recently been occupying more than ordinary attention, from the determined attempts of the anti-vivisectionists to prohibit entirely experiments of every kind on animals; and a Bill with that object in view is actually before the present Parliament. Men of science are compelled to exert themselves, in order to prevent this most valuable method of acquiring knowledge being suppressed, and for some months the leading public journals have contained articles written by several of the most prominent of them, as well as papers from the opponents of vivisection, the most notable of whom are Lord Chief Justice Coleridge, Mr. Hatton, Mrs. Dr. Kingsford, and Frances Power Cobbe.

The President of the Royal College of Veterinary Surgeons was pressed to contribute an article on the subject to the pages of the *Nineteenth Century*, in defence of experimentation, and particularly with regard to diseases in animals. In that periodical for January papers had already appeared from the pen of Sir James Paget, Professor Owen, C.B., and Dr. Wilks, F.R.S. In the March issue the above article was published, accompanied by others from Sir William Gull and Dr. Lauder Brunton, F.R.S.

For those who care to protect inoffensive creatures from cruelty there is abundant occupation; and the sentiment of humanity cannot be too strong or too prevalent, in order to diminish, if not suppress, the cruel practices to which animals are submitted every day without benefit to science, to humanity, or to themselves. Of those who are in a position to help in this good work, the veterinary surgeons in this country, I am proud to say, have been, and are, among the foremost. To excel in their calling they need special qualifications; and among these a love of animals, and an intuitive or even instinctive knowledge of their individual peculiarities, desires, and modes of expression in health and disease, are absolutely essential. The absence of the tender sympathy which is excited when performance of a painful operation is necessary, and which abbreviates time and quickens the fingers, cannot be compensated by other qualities. The abhorrent method of instruction carried on in at least some of the Continental veterinary schools, by which students gain manual dexterity by practising surgical operations on living animals, has never been, and, I am confident, never will be, tolerated or attempted here. It is as repugnant to the feelings and inclinations of British veterinarians as it is antagonistic to the genius of veterinary medicine and surgery, which are nothing if not founded on humanity and practised on humane principles; and it is equally repugnant to the objects and practice of physiologists.

I consider it necessary to offer these observations in order to justify me in the line of argument I am about to adopt, and to show that, both by sentiment and profession, I am as strongly opposed to the wanton infliction of pain as any one can possibly be. On every occasion I have unhesitatingly offered opposition to cruelty, and would be the last to countenance it. It is for that very reason that I hope what I have to say may aid in allaying the exaggerated or morbid sentiment which has been developed in recent times; for if allowed to prevail so as to hamper or prohibit experiments on animals by properly qualified persons, it would prove a most serious injury not only to human welfare, but to that of animals as well. It would gravely compromise the wealth and material progress of nations, and would check that advance in sanitary science upon which public health mainly depends.

In treating of experiments on animals for the purposes of science, I do not deal with those which have been made in the branches of medicine known as physiology, toxicology, surgery, and pharmacology. Their defence may be left to the able writers who have already dealt with these several parts of the subject. I will confine myself to those which belong to pathology, *i.e.*, which are performed to elucidate the nature of disease, whether in man or beast. I will demonstrate, to the best of my ability, the benefits which have been already conferred by these experiments, and show reason to anticipate fresh advantages to which they will lead in the future. In leaving these other subjects, however, it may be as well to state that every advance made in physiology, pharmacology, and other branches of medicine benefits animals as well as man. There is no wide line of demarcation between human and veterinary medicine: they are closely allied, and whatever advance of knowledge is beneficial to man is nearly always capable of application to the benefit of the brute.

The term "vivisection," as applied to experimental pathology, and, indeed, to experiments on animals generally, undertaken with scientific aims, is eminently misleading. "Cutting up animals alive" is not a scientific procedure. Opening a vein, or injecting a few drops of liquid under the skin, is etymologically "vivisection," and (if performed with a scientific object) is forbidden by the present law, except under hampering restrictions.

Experimental pathology, the youngest and most brilliant branch of medical science, investigates the causes, course, and natural history of disease by

producing it in the lower animals. It is the synthesis, as clinical diagnosis is the analysis, of disease. The latter leads to rational treatment, the former to efficient prevention. In the maladies experimentally produced we have only before us what veterinary surgeons have to deal with every day, what we are often unable to cure or to prevent; but we are far better able to investigate the conditions which produce them in the laboratory than in the stable, cow-shed, or kennel.

When we produce diseases experimentally—painful diseases they may be—we must not forget that Nature herself is a cruel experimenter. Excepting human diseases, let me ask what can be more painful to witness than Tetanus, Cattle-plague, Rabies, Pleurisy, and many other disorders with which she afflicts the lower creatures?

The pains inflicted by the experimental pathologist are those of disease, the effect of the "vivisection," but not the operation itself. The pain of inoculation is usually no greater than that caused by the prick of a pin: but inoculation may be unnecessary, indeed, often is; for experiments may be made by simply feeding animals on certain matters, giving them fluids, or making them breathe an atmosphere charged with particles of virus.

The mystery which surrounds the origin, development, and course of many deadly maladies of man and beast has ever proved a terrible obstacle to their prevention or cure. "The pestilence that walketh in darkness," devastating the hearth and the homestead, the herd and the flock, and striking terror into the stoutest heart, has been ascribed to a miasma, a "something in the air," as vague as it was dreaded and uncontrollable. Other scourges, which, because of their constant presence and less sudden and general fatality, were not so appalling, were nevertheless grave and harassing in their consequences, and quite as obscure in their origin. It is with these mysterious diseases more especially that experimental pathology has been called upon to deal; and perhaps no more astonishing chapter in the romance of science could be written than that for which this branch of investigation has already supplied the materials. As I hope to show, the benefits which these experiments on living animals have yielded are already great; while prospectively the same method promises to change half the art of medicine, from a curative system, with all its difficulties and uncertainties, to a preventive or protective one, applicable no less to animals than to mankind. How much pain and sickness will the world then be spared! How much loss, embarrassment to commerce, and danger to human and animal life will then be averted!

The contagious and infectious disorders are those which have ever been most destructive and intractable. Some of these are special to the human race, others to one or more species of animals; while some, again, are widely transmissible from species to species. Many of those affecting the lower creatures can be conveyed to man—as Rabies, Glanders, Anthrax, Foot-and-Mouth Disease, and probably Tuberculosis and Diphtheria. There are also the parasitic diseases of animals, several of which may be transmitted to ourselves—as Trichinosis, and those due to various kinds of worms and to vegetable parasites.

The intimate nature of the infective materials, or *contagia*, of communicable maladies is a discovery of almost yesterday; but it has thrown a flood of light on their phenomena, and, with the aid of experimental pathology, will enable us in all probability either to abolish them altogether, both in man and beast, or at least to render them nearly harmless. The agents in the transmission of contagious diseases—proved in some cases, and probably present in all—are minute organisms, which need almost the highest magnifying power of the microscope in order to examine them. They are endowed with most marvellous powers of multiplication, which

enable them to act with deadly energy in a very brief space of time. *Their discovery as lethal agencies was only, could only be, determined by means of experiments on living animals.*

And by experiments on animals alone was the next great advance made. Having seized and identified the agent which produces deadly disease, and having rendered it amenable to artificial cultivation in appropriate fluids, the organism which had hitherto been productive of such direful results in the bodies of its victims was now, by means of experiments on living creatures, to be made the servant and benefactor of mankind.

The germ which under ordinary circumstances produced painful, and only too frequently fatal consequences, was, by means of artificial cultivation, so modified, so attenuated in energy, that when again transferred to the animal body it had not only lost its dreadful malignity, but had been transformed into a protecting agent: it afforded immunity against the disease which it formerly produced.

Every step in this grand and fecund discovery was accomplished by experiments on animals, and in no other way could be it effected. Inoculations had to be made to test the potency of the cultivated germs, and to ascertain to what extent their diminished energy was compatible with the existence of the inoculated creature, and with its immunity from the original disease. Experiments and control-experiments, very numerous no doubt, were absolutely essential in order to arrive at conclusions; and the result has been the greatest discovery of this century, so far as medicine is concerned, a discovery which is destined to be of such vast benefit, as to rival, or perhaps ultimately excel, that conferred by Jenner upon his too often ungrateful fellow-men.

The two diseases of the lower animals in which the experimental method has hitherto led to the most complete results are Anthrax and Chicken-Cholera. Anthrax, or Splenic Fever, known in France as "Charbon," and in Germany as "Milzbrand," is one of the most fatal and widespread of all the scourges of the lower animals, destroying, as it does, not only those which are in a state of domestication, but also those which are untamed. It prevails, in one or more of its diversified forms, over the entire surface of the globe. It sometimes decimates the reindeer herds in the Polar regions, and is only too well-known in the tropics and in temperate latitudes. The carefully tended ruminants of the most highly civilised countries suffer equally with the wandering herds and flocks of the Mongol steppes; and it is as much dreaded by the Finn and the Lapp as it is by the Mexican, the Arab, the Annamite, or the South African and Australian colonist. It has been carefully described by travellers, as they have observed it in Siberia, Lapland, Russia, Central Asia, China, Cochin-China, the East and West Indies, Peru, Paraguay, Brazil, Mexico, North America, Australia, Egypt, and other parts of the African continent. In Europe the writings which have been published on its nature, its characteristics, and the damage it inflicts, are innumerable. Countries with extensive marshes, or a tenacious subsoil, are usually those most frequently and seriously visited. Thus it happens that there are regions notorious for the prevalence of Anthrax, as the marshes of Sologne, Dombes, and Bresse, and certain parts of Germany, Hungary, and Poland. The disease is enzoötic in the half-submerged valleys and the maritime coasts of Catalonia, and also in the Romagna and other marshy districts of Italy; while it is epizoötic and even panzoötic, in the swampy regions of Esthonia, Livonia, Courland, and above all in Siberia, where sometimes, in order to suppress the ravages of the terrible "Jaswa," as it is called, the aid of the military authorities is called in, and battalions of soldiers are sent to bury or burn the thousands of infected carcases. I do not know of a region in the whole world where Anthrax is unknown; and

its antiquity is as great as its geographical extension is wide. It was one of the scourges with which the Egyptians were punished, when there was "a breaking forth of *blains* upon man and upon beast, throughout all the land of Egypt; upon the horses, upon the asses, upon the camels, upon the oxen, and upon the sheep." Virgil* has depicted its deadliness and contagion with the greatest accuracy, pointing out the dangers of the tainted fleeces of sheep to mankind, as if he were describing the cause of what is now known as the "Wool-sorters' Disease"† It frequently occurs in the histories of the Early and Middle Ages, as a devastating pestilence among animals, and through them as a plague of mankind. Our oldest Anglo-Saxon manuscripts contain many fantastic recipes, charms, and incantations for the prevention or cure of the "Blacan Bleyene" (Black Blain), and the relief of the "elf-shot" creatures. From these up to our own times Anthrax has attracted more and more attention; even in this century it has spread in some of its outbreaks over the whole of Europe, from Siberia to France.

The losses inflicted by Anthrax are appalling.‡ Some idea of their extent may be derived from the fact that in one district of France alone, Beauce, it kills annually about 178,000 sheep, which (at only thirty francs a head) are worth 5,340,000 francs, or £213,600. In 1842, when sheep were much less valuable than now, the loss in the same district was estimated at 7,080,000 francs. The disease also prevails among sheep in Brie, Champagne, Berri, Poitou, Auvergne, Dauphiné, and Bourgogne. In the arrondissement of Chartres, 17,800 perish from it every year. It is estimated that sheep to the value of twenty millions of francs are lost annually in France. Cattle, horses, and other creatures suffer also severely. In Russia the losses are enormous, especially among the horses and cattle. In 1837, in one district alone, 1,900 died of Anthrax; and in 1857, for the Russian Empire, it was reported that 100,000 horses had perished. In 1860, 13,104 cattle out of 18,883 attacked with the "Jaswa," succumbed; and from the official report for 1864 it appears that in the five governments of St. Petersburgh, Novgorod, Olonetz, Tver, and Jaroslav, 10 000 animals died, most of them horses, few cattle, and still fewer sheep; while 1,000 persons were infected and perished. From the 15th of January to the 27th of March 1865, 47,000 cattle, 2,543 horses, and 57,844 other domesticated animals were lost in the governments of Minsk, Vitepsk, and Mohilev; and in the government of Tobolsk, in June and July, 1874, there perished from the "Siberian Plague" (as Anthrax is sometimes designated) 4,735 horses, 516 cattle, 1,030 sheep, 52 pigs, 15 goats, and 106 human beings. In other European countries it is very prevalent and deadly, and in our own islands it causes heavy losses. In India it is witnessed in all animals, and as "Loodiana Disease" is well known as a fatal scourge among cavalry horses. In South Africa, as "Horse-sickness," it is most destructive particularly in low-lying, damp regions, at a certain season, when it kills, nearly all the horses after only a few hours' illness.

Brauell, the eminent professor at the Veterinary School of Dorpat, Russia, was the first to describe the organisms called *Bacilli*, which have since been proved to be the active agents in the production of Anthrax; and the laboratory experiments of Delafond, Davaine, Chauveau, Toussaint, and others, but above all, Pasteur, have perfected our knowledge of the action of the poison, and the means by which its energy may be so modified, that, when inoculated into healthy animals, instead of destroying them, it only gives rise to, at most, a slight ephemeral disturbance, and confers immunity.

These laboratory results were received with incredulity by many authorities. It was therefore decided that a practical and public demonstration

* Georg., lib. iii., vv. 478—514. † *Ibid.*, v. 651.

‡ For details I may refer to the second volume of my work on "Veterinary Sanitary Science and Police."

should be given ; and only last year Pasteur publicly demonstrated that in this disorder, as in the disease of silkworms, the results of his experiments were correct. At Melun fifty sheep and twelve head of cattle were placed at his disposal. Half the number of these animals were inoculated with the cultivated or attenuated virus, and fifteen days subsequently the entire number were inoculated with uncultivated or deadly virus. Forty-eight hours had not elapsed before his prophecy was verified. Those which had not been inoculated with the cultivated virus were all lying dead, while those which had been so protected were grazing in perfect health among them. This appeared to be most convincing evidence, and the majority of the incredulous were converted ; but as the virus had come from the laboratory, it was thought that another demonstration was still needed to make the proof complete, and that Anthrax blood itself, the deadly effects of which on men and animals were so well known, should be employed as the test of protective inoculation. An official commission was therefore appointed at Chartres to set the matter at rest, and twenty sheep were allowed. As at Melun, so here ; those inoculated with the attenuated virus were not in the least affected when they received what would have been otherwise a fatal quantity of Anthrax blood, while of those that had not been previously inoculated, all died except one.

There was now no longer any doubt as to the value of protective inoculation, and the greatest anxiety was manifested to have the flocks in the Anthrax-haunted districts so insured with all possible haste. Up to the first day of last October, 160 flocks, comprising 58,900 animals, had been inoculated in the proportion of 3 to 2 ; *i.e.* 33,576 against 21,938, which were not inoculated on purpose to show the difference. Before inoculation was resorted to, the loss had been, in all the flocks, 2,986. During the inoculations and until their effects were completed, 260 died in the group of 33,576 which had been operated on ; and during the same time, in the non-inoculated group, 366 perished of the 21,938. But when the effects of inoculation were achieved in the first group, the mortality from the disease fell at once to five, and then ceased ; while in the other group it continued at the usual rate. At Alfort a hundred sheep were protectively inoculated, and subsequently received a sufficient quantity of the crude virus to cause death to animals not so protected, and yet not one died.

The value of this new method cannot be exaggerated, even if it were applicable to Anthrax alone. We have glanced at the geographical distribution of the disease, the destruction it works among animals, and the deaths it causes in mankind. By means of this discovery, made through experiments on living animals in the laboratory, this scourge, hitherto irrestrainable and incurable, is now completely under the control of man, all over the world.* The discovery is greater even than that of vaccination, inasmuch as that was only applicable to the one disease, Small-pox ; whereas this method can probably be applied to many contagious diseases besides Anthrax.

The same method of cultivation and inoculation so successful with Anthrax had already been adopted in the fatal pestilence of poultry known as "Fowl-cholera," a disease which is very contagious and incurable, so that it clears out poultry-yards in an incredibly short time. By inoculating fowls with the cultivated virus of the malady, they are rendered proof against it.

Rabies and Hydrophobia (if we may employ the two designations for one

* I have already suggested the adoption of the method for Anthrax in India and South Africa, as well as for other diseases in these countries and in other portions of our dominions.

disease) are only too familiar to the public by the terror they inspire. Much of the knowledge we possess with regard to Rabies, particularly as to its symptoms and latency, has been derived from inoculation experiments on animals; but no cure has yet been found for it; and the preventive measures are merely those of police, consisting in destroying rabid or suspected animals, keeping down the number of ownerless dogs, and guarding against the infliction of bites. Experiment has disproved what was long believed, that the virus exists in the saliva alone; and now it is not only ascertained that it is to be found in other fluids, and especially in the brain and spinal cord, but that it is more virulent in these than elsewhere. In no other disease is the latent period so uncertain and prolonged; and often weary months of painful suspense have to be endured before it is known whether safety to a bitten person or animal is possible. Inoculation experiments with the brain-fluid of a rabid dog have developed the disease in a week or fortnight, the inoculated animal dying from acute Rabies in about three weeks. And a more important discovery still, with regard to this frightful malady, has recently been made by Galtier. By the injection of the virus of Rabies directly into the circulation, not only is the disease not produced, but, after exhibiting slight fever, the animals are protected from contagion in future. Ten sheep have been in this way rendered resistant, while the same virus introduced beneath the skin of others which had not received injection has produced fatal effects. Galtier is inclined to believe that this injection of the virus into a blood-vessel might even prevent the development of Rabies *after* an animal (or perhaps a human being) has been bitten by a mad dog. But it is more than probable that for this and other communicable diseases, cultivation of the virus will lead to the production of a material or modified germ which, while causing little or no general disturbance after inoculation, will effectually destroy the receptivity which had previously existed in the system.

It is to experiments on animals that we must look for protection from the death-dealing and destructive contagions which are never absent from our homes, our stables, cowsheds, pastures, kennels, and piggeries. A long series of disorders, against which the curative skill of man contends in vain, may soon be brought into the list which only at present comprises Fowl-cholera and Anthrax.

The ravages of Cattle-plague are a terror to every European country, while it is a desolating scourge in Asia, which is its home. India is always more or less seriously visited, but Russia is more especially its victim, and, in consequence of its continued presence, cannot dispose of her immense surplus stock of cattle and sheep. Ordinary inoculation has been tried for many years, but the mortality attending it has been nearly as serious as that from the disease itself. There is every probability that Pasteur's method of cultivating virus will protect from Cattle-plague without any attendant loss, and thus throw open a great source of food supply to Western Europe.

Contagious Pleuro-Pneumonia of cattle is a disease that has caused immense havoc on the Continent and in this country, whence it has been extended to South Africa, Australia, New Zealand, and the United States. It is impossible to estimate the losses it has caused, but their magnitude must be considered as great. By a long-continued series of experiments on animals, Dr. Willems, of Hasselt, Belgium, has succeeded in perfecting a method of protective inoculation which is certain in its results. Further experiments with the cultivated germs of the virus are now being carried on, with a view to obviating troublesome accidents which sometimes accompany this inoculation, and with every prospect of success. By this means, what has been hitherto a pestilence among cattle can be easily combated, and should be finally exterminated by its own germs.

The ravages caused by Swine-plague in Europe and the United States are of the gravest description. The disease is very contagious, experiments having proved it to be not only readily transmitted by inoculation, but also by cohabitation of healthy with sick swine. It is due to a special germ like that of Anthrax, and there is every reason to believe that by cultivating this germ and experimenting on living animals, this plague will also be subdued.

Sheep Small-pox closely resembles the same malady in man, so far as infectiousness and mortality are concerned, but differs in the fact that vaccination does not afford protection; cultivated virus will, in all likelihood, do so,

The so-called "Distemper" of the dog is a very contagious, painful, and fatal disorder, and it is quite possible that experiments with cultivated virus will prove that it can be averted by a trifling operation.

Tuberculosis, or Consumption of cattle, has been demonstrated, by many series of experiments on living animals, to be not only contagious and inoculable in cows, but to be communicable to a large number of species, both by inoculation and feeding them with the tubercular matter, as well as the milk and flesh of diseased creatures. Without these experiments this important discovery could not possibly have been made; indeed, the communicability of the disorder through the digestive organs, by means of the flesh and milk, was never suspected until inoculation experiments were made. By this discovery a most serious sanitary question arises as to whether and to what extent the public health my suffer from the existence of the disease among cattle which furnish milk and flesh. Tuberculosis is, we fear, on the increase among these food-producers, and often prevails extensively in dairy stock. Consumption in its various forms is painfully common in mankind, and the relationship between the human and the animal malady is a problem that presses urgently for solution. This can only be afforded by careful *observation* and *experiment*, the two indispensable methods of progress in natural science. Meantime, it may be interesting to note that the pig (a creature whose organisation approaches in some respects nearest to that of man, and which is not naturally liable to the disease) is very readily infected, and suffers from it in an acute form, when fed on infected milk or flesh. Toussaint believes he has discovered a germ peculiar to the disorder. If so, by the cultivation method, cattle likely to be exposed to the contagion may be protected by inoculation, and danger to themselves, as well as those persons who chance to consume their products, may be averted.

Glanders, as every one knows, is a highly contagious disorder of solipeds, and is now very prevalent in the United Kingdom. In London it is especially so, and causes great losses to owners of horses. It is readily communicable between the horse and ass species, less so between these and other species, but man is frequently infected. It is a most repulsive malady, and is incurable. Very much of our knowledge respecting it is entirely due to experiments on living animals. Not unfrequently it manifests itself in a chronic form, and with such vague symptoms (though it is, nevertheless, as contagious as if these were well marked), that the most skilful veterinary surgeon cannot tell for certain whether it is the disease or only an ordinary catarrh. If it be Glanders, then to allow the animal to live is to endanger the life of every horse and man who come in contact with it; while to destroy it, if the malady is not contagious, would be cruel and unnecessary. When time is an object, or facilities for isolation are not present, then test inoculation must be resorted to. For this purpose a worthless horse, or, better still, an ass, is inoculated, and a few days suffice to decide whether Glanders is present. If the result of the inoculation is affirmative, the experimental animal manifests symptoms, generally at the seat of inoculation,

which cause it little if any discomfort, and it is at once destroyed, as is also the suspected horse. By this precautionary procedure, many horses, possibly those of an entire regiment or army corps, may be saved from peril, and human lives preserved from a loathsome and fatal disease.

In elucidating the processes of disease, in framing preventive measures, in investigating the spread of contagious disorders, as well as in perfecting modes of cure and the most humane methods of surgical operation, experiments on living creatures are *absolutely necessary*, for their own interests no less than for those of mankind. Veterinary medicine and surgery are based on humanity no less than on utility, and their aim is to remove or alleviate pain among the animals placed under the dominion of man. By experiments in pathology, disease and mortality have been vastly diminished, and continued experiments in the same direction will cause further diminution. If mankind benefits, so do animals. A discovery which will avert disease in one will probably do so in the others: every advance of knowledge is a boon to all. To prohibit resort to experimental pathology would be at once to doom creatures which we are bound to protect, to the endurance through all time of terrible suffering from diseases that might otherwise be vanquished. Abhorring cruelty in every shape, and desirous of abolishing it by every possible means, I must nevertheless deprecate the attempt to place a barrier across the path pursued in pathological investigations on animals.

GEORGE FLEMING.

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## THE DOGS' HOME AND VIVISECTION.

THE annual meeting of the supporters of the Home for Lost and Starving Dogs was held at the offices of the Society for the Prevention of Cruelty to Animals on March 10th. Sir Francis Burdett, Bart., presided, and was supported by the Baroness Burdett-Coutts, Miss Frances Power Cobbe, Sir Alexander Malet, Professor Pritchard, Mr. G. Fleming, president of the Royal College of Veterinary Surgeons; Dr. Boyd-Moss, Mr. Merryweather-Turnor, and others.

The report stated that in 1881 there were 15,735 dogs received into the home. Of these, 15,621 were received from the metropolitan police, 63 from the City police, and 51 from private individuals; 5,548 had been claimed or sold during the year, 3,493 dogs being claimed by their owners. A detective had been employed to watch the destination of purchased dogs to prevent them getting into the hands of vivisectionists. Subscriptions and donations amounted to £1,053; and the sale of dogs, etc., produced £1,744. The report was adopted.

On a motion of re-election and of thanks to the Committee,

Miss FRANCES POWER COBBE moved as an amendment, that, as Mr. G. Fleming had published in *The Nineteenth Century* an article in favour of vivisection, his name should be omitted from the Committee.

Miss LLOYD seconded the amendment.

Mr. FLEMING defended the article in question, stating that he had shown in the article that animals, no less than human beings, were benefited by pathological experiments. He contended that in Rabies and other diseases these experiments were most important.

Professor PRITCHARD said there was not a line in the article which could prejudice the public against the Dogs' Home; and Mr. Colam, Secretary of the Society for the Prevention of Cruelty to Animals, asserted that there was not a word in it in favour of vivisection.

The Baroness BURDETT-COUTTS said she had attended the meeting

because she understood the question of vivisection would be before it. There must be held to be a great difference between pathological experiments and vivisection. It would not be for the interest of the Dogs' Home that there should be on the Committee those connected with vivisection, but here Mr. Fleming's humanity to animals could not be doubted, and, on the other hand, Miss Cobbe had endued the subject of animals with a beauty exclusively her own. Mr. Fleming had done nothing against the law, however regrettable the law was. In conclusion, the Baroness spoke against the amendment, but said it was highly important that the public should not imagine that the dogs in the Home were subjected to vivisection.

The amendment was lost, and Mr. Fleming was re-elected, only ten votes in a crowded meeting being recorded against him.

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## ON THE IMMUNITY OF ADULT CATTLE FROM "BLACK QUARTER."

It is well known to veterinary surgeons that "Black Quarter" (the "Charbon Symptomatique" of the French) in the enzoötic form only attacks bovine animals one or two years old. Arloing, Cornevin, and Thomas, professors at the Lyons Veterinary School, note that in Bassigny, where the disease is extremely common, the farmers know this fact well, and consider that when an animal has reached its fourth or fifth year, it is safe from an attack. One of the professors asserts that this popular conviction is based on fact, for during the fifteen years he practised medicine in Dammartin, Haute-Marne, he had never witnessed an adult animal, born and bred in the locality, suffer from the disease. This immunity, they observe, is very remarkable, and deserves investigation. Is it a privilege of age, or more scientifically speaking, is it an effect of the modifications which the organism has undergone when it reaches the adult state? This hypothesis is not very reasonable. In fact, the privilege only belongs to adults reared in the infected localities. In Algeria, where the cattle are passed from the plateaux to the littoral of the Mediterranean, remaining only a short time with the different owners, this form of bacterian Anthrax makes victims of every age. In Bassigny even, a cow aged six years was affected in November, 1878, but on inquiry it was found that it had been recently imported from another locality where the disease is exceedingly rare, if not unknown.

Granting that immunity is only acquired by adult cattle reared in the infected places, the authors of the paper from which we extract these remarks, admit that it appears logical to abandon the preceding hypothesis, and to assimilate this immunity to that conferred artificially by the inoculation of an infinitesimal quantity of the virus. That is, supposing that the majority of the young animals living in these localities are inoculated spontaneously with very diverse doses of the virus, those which receive a large dose succumb to the malady, while those which are inoculated with a minimum quantity have the disease in a benignant form, but sufficient to confer upon them an immunity at first slight, but susceptible of being increased by ulterior inoculations, until on reaching adult age they are proof against the disorder, to a degree proportional to the virulent impregnation they have sustained, and which security may be absolute.

In order to submit this interpretation to the control of direct experimentation, three animals were procured—a cow, ten years old, reared on a farm where, in fourteen years, thirteen young cattle had perished from the disease: a second cow, nine years old, born and reared in a hot-bed of the disease;

a third cow also nine years of age, from a farm where the malady had not been seen for at least eighteen years.

These three animals were inoculated last July, in the connective tissue, and with the same dose of virus, which was obtained from an Anthrax tumour. As had been predicted, the two first animals underwent the test safe and sound, while the third succumbed fifty-one hours after the operation, with all the symptoms of the disease. The two cows were inoculated again in September, along with a six-months old bullock; they escaped, but the latter died.

In comparing the result of these experiments with the facts so often noted by practitioners, it might be concluded that the immunity in question is due to spontaneous inoculations; and it is not even necessary that the animal should have arrived at adult life, in order to be able to resist the malady; as previous experiments had shown that three of twelve animals had unequally resisted the inoculation practised on them.

This conclusion as to the nature of the resistance of adults to Anthrax infection is very interesting with regard to general medicine, as it is well known that a very large proportion of adult or aged individuals, or certain groups of individuals—or even certain peoples—enjoy a relative immunity when exposed to infection of the most virulent character.

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## THE ROYAL COLLEGE OF VETERINARY SURGEONS.

IT is finally decided that the influential deputation formed to wait upon the Lord President of the Privy Council, with the view of obtaining assistance from the Government in procuring a suitable building for the Royal College of Veterinary Surgeons, will be received by Earl Spencer, on Wednesday April 26th, at 3.30 p.m.

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## ROYAL AGRICULTURAL SOCIETY'S PRIZES.

ONLY three competitors offered themselves for these prizes in January last —viz. Messrs. J. S. Wheatcroft, W. F. Barrett, and G. G. Mayor. Out of a possible 1,500 marks, the first-named gentleman obtained 1,090, the second 1,060, and the third 960. The three prizes were therefore awarded accordingly. The examiners were Messrs. T. W. Mayer, D. Gresswell, and W. Duguid.

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# Proceedings of Veterinary Medical Societies, &c.

## MIDLAND COUNTIES VETERINARY MEDICAL ASSOCIATION.

THE forty-fifth quarterly meeting of this Association was held at the Midland Hotel, Derby, on February 3rd., Harry Olver, Esq., F.R.C.V.S., President, in the chair. Present,—Captain Russell, V.P., Grantham; Messrs. J. Wiggins, V.P., Market Harborough; E. Stanley (Secretary), Warwick; Trigger, Newcastle-under-Lyne; H. Cartwright, H. Pritchard, and Beddard, Wolverhampton; Coe, Stoke-upon-Trent; Hodgkiss, Hanley; Meek, Walsall; Wragg, London; Perrins, Worcester; Blunt, Lutterworth; Martin, Chesterfield; Reynolds, Daventry; Ison, Atherstone; Greaves,

Faulkner, and Hopkin, Manchester; Smith, Tunstall; Hodgkinson, Uttoxeter; Rossell, Sandiacre; Aitken, Loughborough; Price, Birmingham; Collett, West Bromwich; Walker, Dudley; Kenyon, Ashbourne; Towlson, Alfreton; and Turner, Birmingham.

The minutes of the previous meeting, held in Birmingham, were read and passed, on the motion of Mr. Greaves, seconded by Mr. Meek.

The PRESIDENT, in directing the reports of the Treasurer and Secretary to be read, said he had to express the regret of Mr. Blakeway, their Treasurer, that he was not able to be present. Most, if not all of them, knew that he was a very regular attendant, and they would, no doubt, be pleased to hear that it was the marriage of his son which had kept him at home.

The SECRETARY then read both reports, which were of a most satisfactory character, and they were unanimously accepted, on the motion of Mr. Trigger, seconded by Mr. Pritchard.

The PRESIDENT said the next business was to consider the letter received from Mr. Hunting, which had been adjourned from the last meeting, with reference to the starting of a weekly journal in connection with the veterinary medical profession.

The SECRETARY said he had received several letters, making inquiries as to what they were going to do with reference to the printing of the records of the Society. He had written to Mr. Hunting asking for information, but had not received any reply. He (the Secretary) thought that so long as the veterinary journals were willing to report their meetings in such a detailed manner, it was quite sufficient, and that the weekly paper suggested by Mr. Hunting was not necessary. They had also been asked to give their support to the holding of more frequent veterinary congresses, and to express their views respecting the formation of a British Veterinary Medical Association. He considered a weekly journal was unnecessary, and he would move "That the suggestion of Mr. Hunting be not entertained."

Mr. WIGGINS said he was of opinion that if they imported another journal into the field they would mar the success of the two at present existing. He could not see the use of a third journal, and was of the same opinion then as he was at the last meeting, that the proposal be not entertained. He seconded the motion.

Mr. TRIGGER fully agreed with the remarks which had fallen from the previous speakers. There was no necessity for another journal, as long as the existing ones admitted the reports of their meetings.

The motion was carried unanimously.

The PRESIDENT said, the next subject for consideration was one contained in a letter which had been read from Mr. Banham, respecting the advisability of forming a British Medical Veterinary Association, of which congresses should be held once a year. He (the President) questioned whether such frequent meetings would be successful. However, he wished to have the opinions of the meeting.

Mr. GREAVES said he had some conversation with Mr. Banham the other day at Norwich. Mr. Banham was very anxious that the matter should be brought before the various associations and was wishful that they should think with him that it was a move in the right direction. He (Mr. Greaves) was in favour of the scheme, which was a union of all the Veterinary Medical Associations in England, the meeting of which would take place every year, every three years, every five years, or at whatever periods they might choose to fix. The first National Congress, held twenty years ago, was originated by the Veterinary Medical Association. It was well attended and supported, and did well for the profession. He had no doubt that the good which would result from such congresses as the one proposed would be a bene to the profession. He moved "That we con-

sent to this association joining the other associations, and forming a British Medical Association."

Mr. COLLETT seconded the motion.

Captain RUSSELL said one of the great drawbacks to the veterinary profession was the want of unanimity of opinion amongst its members. He believed a congress such as the one proposed would cause more unanimity of opinion to exist, and he, therefore, begged to support the motion, at the same time suggesting that the meetings be held once a year.

Mr. WIGGINS cordially supported the motion.

The PRESIDENT then divided the motion into three sections, and took the sense of the meeting upon them separately. He asked :—

First, "Whether such an association as the one proposed would be advantageous?"—Carried unanimously.

Second, "Whether it is advisable to form a committee to consider the subject?"—Carried unanimously.

Third, "As to how often its meetings should be held?"

The PRESIDENT said there was an equal number in favour of one and of three years ; he thought Mr. Banham should be informed that the votes for one and three years were equal.

The SECRETARY said he had received a letter from Mr. Martin, of Rochester, asking that the Association should join in presenting a testimonial to their President, Mr. George Fleming, for the valuable services he had rendered to the profession in procuring "The Veterinary Surgeons' Act," at a great sacrifice to himself of both time and money. In thinking the matter over, it appeared to him (the Secretary) that they were placed in an awkward position, as the question had already been put to Mr. Fleming whether he would accept any remuneration, and he had replied that he would not ; that what he had done was for the honour and welfare of the profession, and the offer of money would be repugnant to his feelings. The only thing to consider was whether they should present him with a testimonial of any kind.

Captain RUSSELL said Mr. Fleming had distinctly stated to him that he would not accept any compensation for the trouble he had taken. But, at the same time, he (Captain Russell) thought it might be a gratification to him to receive, say an illuminated album, containing the names of the 2,000 members belonging to the profession.

Mr. GREAVES said it was through Mr. Fleming's indomitable perseverance and tact that the Act of Parliament had been obtained for them, and his services were certainly worthy of some recognition ; for there was no man who worked so hard on behalf of their profession. His labours alone in the shape of literary work had been such as to reflect great credit upon the profession. Mr. Fleming was a man in a thousand. He (Mr. Greaves) thought a testimonial would be acceptable to Mr. Fleming, and that it might be left to a committee to say what form the testimonial should take—whether it should be a portrait, or a piece of plate, or whether, as Captain Russell had suggested, it should be an illuminated album, with the names of the 2,000 members of the profession in it. He (Mr. Greaves) would have great pleasure in doing his share of work, and he thought it would be a pleasure to the members to show that they were not ungrateful to Mr. Fleming for his efforts. He begged to move "That this Association is of opinion that a testimonial should be given to Mr. Fleming, and that a committee be formed to put themselves in communication with Mr. Martin, by way of bringing the matter to a practical issue."

The SECRETARY seconded the motion, because he said he could not help thinking that Mr. Fleming would feel such a testimonial to be an expression of the gratitude of the profession. Of course it was not necessary that the testimonial should assume a pecuniary form.

The PRESIDENT said he agreed with every word which had been said, and he was sure they all felt that Mr. Fleming was worthy of whatever they could give him.

The motion was then put and carried unanimously.

It was resolved that the committee of the association to assist in furthering the testimonial should consist of the President (Mr. Olver), Captain Russell, Mr. Greaves, and the Secretary (Mr. Stanley).

The SECRETARY said their worthy President had done his best to find a substitute, owing to the absence of some of the older members, for the post of President, but had not been able to do so. He (Mr. Stanley) begged to propose that they retain the services of Mr. Olver as President. (Hear, hear.)

Mr. GREAVES said that was not the first time they had been in a similar fix. He thought they could not be better served than they were at present, and he thought if they re-elected the three gentlemen who were retiring from office they could not do better. (Hear, hear, and applause.)

Mr. WIGGINS said he had not the slightest fault to find with their present President, who had discharged his duties in an excellent manner; but he thought it was only fair that every member of the Association should have a chance of filling the offices, and he begged to propose "That Captain Russell be President for the ensuing year."

Mr. BLUNT seconded the motion.

The PRESIDENT said he was elected most unwillingly to the office, and would be delighted to give place to a successor. If they would allow him he should like his proposer and seconder to withdraw his name.

Mr. GREAVES said, without casting the slightest reflection upon their present President, he was willing to withdraw his motion. He knew that several gentlemen had been urged to accept the Presidency for this year, but they had declined through backwardness and modesty. He did not think a better selection could be made than that of Captain Russell, as their present President was willing to withdraw.

The PRESIDENT said it was not necessary to put the motion to the vote, as it was the only one. He was quite sure Captain Russell would make a good President, and he could assure them that none of them were more pleased at his election to the office than he (the President) was.

Captain RUSSELL, in returning thanks for his election, said he would be proud to do all he could to carry out his duties in the same able manner as their present President had done. (Applause.)

On the motion of the Secretary, seconded by Mr. Wiggins, Mr. Price, of Birmingham, was elected Vice-President.

On the motion of Captain Russell, seconded by the President, Mr. Trigger, of Newcastle, was elected Secretary.

The PRESIDENT proposed that Mr. Blakeway be re-elected Treasurer.

Mr. TRIGGER seconded the motion, and added, "That the best thanks of the Association be given to him for the manner in which he has acted hitherto."

The motion was carried unanimously.

Mr. GREAVES, in making the next motion, said, being a member of the Council, he could understand the sort of work that had to be done there, and the sort of man required to do it. It required a man of sound judgment, experience in his profession, and one who, when he set his foot down, kept it there. He therefore begged leave to propose, "That Mr. Perrins, of Worcester, be selected as the candidate for the next Council of the Royal College of Veterinary Surgeons." (Hear, hear, and applause). He did not think they could do themselves or the profession more honour than by electing Mr. Perrins as a candidate for the next Council.

Mr. CARTWRIGHT seconded the motion, which was carried unanimously.

The following gentlemen were unanimously elected members of the Association:—Messrs. Alton, Derby; G. Bland; H. A. Towlson, Alfreton; and Benjamin Freer, Uppingham.

Captain RUSSELL then read a lengthy and able paper on "Castration," and displayed on the carcases of two dogs his methods of securing colts and stallions whilst the operation is being performed.

By permission of Captain Russell the following extracts are given from his paper:—

"The tackle required consists of a number of ropes of different lengths, namely, a long rope, seventy feet, doubled, to form two side and neck rope, or as I have them, attached to two straps to form a collar; a shackle-rope with metal loop attached, sixteen feet; two cords, each seven feet; four shakles, with metal loops, each fourteen inches; and last, but not least, a twitch one foot long. These, with the spreader, constitute a set of Miles' tackle."

Characterizing the ordinary methods of removing the testicles as cruel, he says:—"I have tried all these different ways, but I must candidly tell you I firmly believe the Ecraseur of Farmer Miles beats them all. To use this instrument successfully requires practice and knack. Observe that the chain is *straight* across the cord, and not in a slanting direction, as if the vessels are broken through on the slant, a good deal of hæmorrhage may follow; screw the chain home through the head of the instrument. Do not attempt to cut (with a knife) through the adhesions. The great bugbear against this operation appears to be the fears entertained of hæmorrhage. . . . . I do not believe in hæmorrhage if the operation is properly done. I believe it would invariably stop of itself. In case of breakage, it is well to be provided with an extra chain."

A discussion followed the reading of the paper, and was of an animated and interesting character; some of the members expressing opinions that Captain Russell's methods were too complicated and involved too much time.

Stoke-upon-Trent was selected as the next place of meeting.

At the conclusion of the business proceedings, the members dined together.

EDWARD STANLEY, F.R.C.V.S., Warwick, *Hon. Secretary.*

## LIVERPOOL VETERINARY MEDICAL ASSOCIATION.

THE seventieth quarterly meeting of this Association was held at the Medical Institute, Hope Street, on Friday afternoon, February 10th, 1882, the President (Wm. Leather, Esq.) in the chair. There were present: Professors Robertson, Williams, and McCall; Messrs. Bain, Bell, Donald, Elam, Kitchen, T. Leather, A. Leather, Morgan, Morris, Reynolds, and Sumner, of Liverpool; Mr. Langley, and the Secretary, Birkenhead; Messrs. Faulkner, Greaves, Hopkin, A. Lawson, Locke, P. Taylor, T. Taylor, W. A. Taylor, and Wolstenholme, Manchester; Messrs. Edwards and Storrar, Chester; Mr. Dacre, Altrincham; Mr. J. W. Hill, Wolverhampton; Mr. Pilkington, Woolton; Mr. Stone, Little Hulton; Mr. Wall, Warrington; Mr. Woods and Mr. Woods, junr., Wigan; Mr. Whittle, Worsley; Messrs. Brown and Ellis, Ormskirk; and Mr. Cartwright, Holywell. Letters and telegrams, regretting their inability to attend, were received from Sir F. W. Fitzwygram, Bart., Professors Brown, Walley, Axe, McFadyean, and Lewis; Messrs. Fleming, Barnes, Blakeway, Barron, Bromley, Broughton, Buckley, Carless, Carter, Crawford, Dobie, Darwell, Hayes, J. Lawson, W. Lewis, Litt, May, Middlehurst, Moore, Nuttall, Proctor, T. Roberts, M. J. Roberts, Robinson, Simpson, Stanley, and Stephenson.

The minutes of the last quarterly meeting and of the extraordinary meeting were read and confirmed.

Mr. Charles Cartwright, Llanasa, Holywell, was unanimously elected a member of this Association.

Mr. Elam nominated Mr. Pilkington, Woolton, as a member of this Association.

The SECRETARY reported, with reference to Mr. Hunting's letter regarding the publication in a separate journal of the proceedings of Societies, that he had written to the Secretaries of eight Associations, and had received replies from seven of them, all being unfavourable to the project, and that Mr. Hunting had not replied to his letter asking for further information. The subject then dropped.

The SECRETARY read a letter from Mr. Martin, Hon. Sec. of the Southern Counties Veterinary Medical Society, with reference to the presentation of a testimonial to Mr. Fleming in recognition of his services in relation to the Veterinary Surgeon's Act. It was ultimately agreed to adjourn the consideration of the subject for twelve months.

The SECRETARY read a letter from Mr. Banham respecting the formation of a "British National Veterinary Association," and requesting that the subject be brought before the members of this Association, so as to find out if they were in favour of such a scheme and willing that the Society should assist in its formation.

After a discussion, the Secretary was instructed to write Mr. Banham and ask in what manner it was proposed to act towards those gentlemen who hold the certificate of the Highland and Agricultural Society of Scotland.

It was proposed by Mr. W. A. TAYLOR, seconded by Mr. BAIN, and carried unanimously, that Mr. G. Morgan, F.R.C.V.S., be nominated by this Association as a member of Council of the Royal College of Veterinary Surgeons, and that the President, Secretary, and Mr. Bain form a committee to correspond, and act in conjunction with other associations, in order to secure united action in support of the nominated candidates.

The PRESIDENT then delivered his introductory address as follows:—Gentlemen,—According to established custom, it becomes my duty, as your President, in commencing my term of office, to deliver the usual introductory address, but as Professor Robertson has kindly consented to introduce a subject for discussion, and as I am unwilling to trespass upon the time of our worthy visitor, or curtail the profitable discussion which I hope will ensue as the result of his demonstrations, the extent of my remarks must necessarily be very brief. Under the circumstances, therefore, I must crave your kind indulgence for the shortness of the few observations I shall make, and I trust it will be accorded without much difficulty. At the same time, I take this opportunity to tender my warmest and sincere thanks to the members of this Association for the honour they have conferred upon me, and the confidence they have reposed in me by unanimously electing me to the presidential chair, begging you to accept my assurance that I will do all in my power to fulfil the duties and functions of my office with credit and satisfaction. I would ask in return that every member of this Association would do me the great favour of giving his best support by a constant attendance at our meetings, and would invite the attendance also of members from other associations, especially the Lancashire Association, who hitherto have given us every support, and thus bring about much mutual benefit by a more frequent interchange of views and opinions, which would undoubtedly do much to advance our knowledge of the diseases of the various animals which our profession calls upon us to deal with. The past year, you are all aware, has been one of very rapid progress in veterinary science, and I am sure that every one present will agree with me in expressing a hope that such a favour-

able impulse to our professional knowledge may be kept up with unabated intensity, ever on the move to further advancement and prosperity. One important and interesting feature in the history of our profession, and one which will undoubtedly affect its future, has been the discontinuance during last year of the granting of the veterinary certificate of the Highland and Agricultural Society of Scotland. It certainly seems more in accordance with the advancement of a profession, that the examining power and the granting of diplomas, that is to say, its administrative functions, should be vested in one single and responsible body. And it is much to be regretted that the termination of the Society's examinations should have given occasion for the expressions of opinion (both *pro* and *con*) as to the etiquette and recognised status of its veterinary department, and which have created no small amount of ill-feeling, where unity of purpose and action should have been the first consideration, and where our watch-word should have been the motto of our Magna Charta, "*Vis unita fortior.*" My personal experience of the Highland Society, of its officers, and of the manner and system in which its veterinary business has always been conducted, has produced in my mind a feeling of the highest regard and esteem. The examiners for the veterinary certificate were men of high repute, shrewd, clear-headed, and practical, and of well-known rank and standing in the profession. The question which has arisen of late as to the advisability of testing a student's practical knowledge at his final examination is one of very great importance; and I would venture to call the attention of the "Royal College" to the fact that they might with advantage take a few hints from the Highland Society as to their method of conducting their practical examinations. Another highly important measure that has taken place last year, has been the passing of the Veterinary Surgeons' Act. My limited time will not permit of any extended observations on this subject, but I must be allowed to say the highest credit is due to its promoter. He has well earned the thanks of the profession, not less for his unflagging energies and unabated zeal, than for the time and labour he has devoted, and the expense he has incurred in furthering the passing of the Bill. The retrospective period, although short, is only what might have reasonably been looked for, considering the influential opposition brought to bear against the Bill by members of Parliament ranging themselves as friends of the unqualified man; for many who have never attained the necessary qualifications were nevertheless highly respected in every way, and worthy the confidence reposed in them by their clients. With regard to the disputed question of the apprenticeship clause, compelling every student to serve a certain period with a qualified practitioner, I am in good hopes of shortly seeing some steps taken whereby it will be attained, feeling assured that it would materially assist the examiners, improve the students, and elevate the status of the profession, if it were made a necessary obligation to his obtaining a diploma.

Few scientific investigations of late have had a more practical inception, followed by prompt results, than the brilliant researches with which the name of Pasteur is associated, in the success of prophylactic inoculations of attenuated virus. The immunity from Anthrax conferred by the injection into the blood of *bacteria* specific of this disease, has been complete. The same eminent experimentalist has made many other additions to our pathological knowledge of the contagious diseases affecting our domestic animals. These discoveries richly entitle him to our sincere thanks and gratitude, and it is pleasing to note that our Council, at a recent meeting, bestowed upon him the well-won honour and title of Honorary Associate.

In the periodicals of last month we noticed with considerable interest the birth of a new Veterinary Medical Association, viz., the Scottish Central.

I am sure, gentlemen, I shall only echo your sentiments when I express a hearty wish for its prosperity and success. May it enrich and elevate both the intellectual status and the social position of our professional brethren in that part of the kingdom! Taking into consideration its very able and competent body of officers, and the enthusiasm that characterised its initiatory proceedings, we may rest assured that ere long it will make its way to the foremost rank of our institutions. In conclusion, gentlemen, you must accept my very best thanks for the kindness with which you have listened to my remarks, whose brevity I wish I could think was not their only recommendation, at any rate I trust you will accord them *that* small merit. But more especially must I express my gratitude to those friends living at a distance, who have, I fear, put themselves to much inconvenience (not to say expense), to honour us by their presence here to-day; such patronage and support we accept as undoubted evidence of the interest they take in our Association, and we shall, I am confident, unite with them in every wish for its success, and trust we are now inaugurating for it another year of increasing prosperity, of advancing knowledge, and increasing usefulness.

Professor WILLIAMS proposed a hearty vote of thanks to the President for his address, seconded by Mr. ELAM, and carried unanimously. The President briefly replied.

Professor ROBERTSON, Royal Veterinary College, London, then read the following essay, entitled, "Some Remarks on the Genesis of Glanders."

Mr. President and Gentlemen,—When invited by your Secretary to attend this meeting of the Liverpool Veterinary Medical Society, I found that, although much pressed for time, and that many engagements were waiting to be attended to, that still there was a speciality of claim which this Society had upon me which was difficult to ignore. Some years ago you asked me to become your nominee as a representative at the Council board, and having placed me there, I have often desired to attend your meetings, in order that in person I might thank you, and give you, if you desired it, an account of my stewardship.

I have chosen at this time to bring under your notice a subject less with the view of instructing than of being instructed. Many subjects offered themselves to me, some rather inviting, because they were unique, or that I had given to them more than an average amount of attention; but none seemed to me likely to be immediately and remotely so beneficial and certain to benefit all, and call forth from each an expression of opinion, or statement of fact and observation, as a consideration of the causes which operate in the production of Glanders in the horse. Although, through the entire extent of our country, the veterinary surgeon is so far cognisant of this disease that he may be able to recognise it should it be encountered, or discourse, to any one who will listen, fluently enough regarding its characters or its modes of development, it is only in our large cities, or situations where horses are collected in large numbers, that men have that intimacy of acquaintance with it which entitles their opinions to more than a deferential hearing. Those of you who have all life long been engaged in practice amongst horses in city stables will probably scarcely believe that a very large number of our brother practitioners only know of Glanders-Farcy from what they have been told or read regarding it. Many of these men in country practice would be as much astonished to encounter a case of Glanders as one of Cattle Plague. The importance of a just appreciation of this disease, particularly in the matter of its etiology, is not easy to be over-rated. It is important to us, as conservators of animal health, and as attendants on horses when diseased, to have clear ideas of the modes, not only how this most loathsome and malignant equine disease is usually propagated and distributed, but also of the possibilities which encompass its origin. As sanitary

officers charged with the repression of disease in animals which is capable of extension to man, we are only imperfectly armed, and are acting with uncertain and indefinite ideas of ultimate success as long as we hesitate and waver respecting the possibility of the origin of this acute infectious disease, so deadly both to its primary and secondary bearers. It is easy to be understood that if Glanders-Farcy is capable of originating from a variety of causes which are of adventitious occurrence, either truly located within the animal itself, or brought to bear upon it from without, but essentially such as are of variable character, it will ever remain a vexed and difficult question to settle what the agencies individually are, and how they may be combated. On the other hand, if we may assuredly state that, like the more prominent of the diseases of the same class in all animals, this serious affection is only capable of development by the previous existence of it in some other animal, that without already existing Glanders we do not know of the disease, then are we standing upon ground sufficiently stable to maintain us in the carrying out of preventive measures with a certainty of ultimately, if not eradicating it, at least of reducing it to the minimum. This is the more needful in our day, seeing that advances in the general application of the science of the healing art tend more decidedly in the direction of prevention of disease than its cure. A review of the history of opinion regarding Glanders, both in our own country and on the Continent, during that period of the present century which has passed, has impressed us with the conviction that this period has been one of transition in regard to the stability of ideas respecting its mode of origin, at first tenaciously maintained to be neither contagious nor infectious, opinions supported not by assertions merely, but by collection of many facts and by records of numerous experiments. Gradually this opinion has been overturned, and a general acquiescence in the certainty of its propagation by both methods has come to be entertained. In the light of these facts it is not to me at all strange that now the more careful observers are ranged on the two opposing lines of opinion, viz., the origin of Glanders-Farcy *de novo*, and the impossibility of its appearance apart from pre-existing Glanders.

Viewed upon broader bases than opinion relative to the origin of a particular disease, these views may be stated as (1) the belief in the chemico-vital or physiological origin of acute infectious disease ; and (2) as belief in the extreme probability, if not absolute certainty, of the genesis of these same diseases from the passage of living animal matter, or organisms, from the already diseased to the apparently healthy. I rather suspect that as regards the views entertained respecting Glanders throughout the veterinary profession, that the greater weight of opinion and authority is ranged in the ranks of those who hold to the former opinion. At the same time it may not be denied that the facts steadily and rapidly accumulating, both from careful clinical observation, and experimental investigations in both comparative and special pathology, point to the ultimate triumph of the latter. Regarding the condition recognised by the term "Glanders" as but the expression of a largely distributed and peculiar disturbance of the activities of a living animal, rendered visible by certain determined textural changes, it is—by those who hold the idea of its possible development under influences unfavourable to health—sought to be established that certain influences, operating either from within or without the animal, or probably in both ways, are capable of inducing these peculiar disturbances and specific lesions. In substantiating this view it is assumed that disturbance of healthy activity, always in a particular and determinate manner, is accomplished by manifold and unvarying agencies, while it is admitted that when once this peculiar condition is attained it can only propagate itself in an unvarying sequence of conditions, as productions of the same phenomenal exhibitions, specific

adventitious depositions, and peculiar tissue changes—a condition certainly unique in the causation and development of acute communicable maladies as far as presently known to us. Could it be shown that the condition known as Glanders-Farcy, when thus produced by the operation of adverse extrinsic and intrinsic influences, might, by infective operation—inoculation—uncertainly develop in horses so operated upon, different conditions of systemic contaminations and unvarying characters of textural change, and not always this determinate specific disturbance and tissue change, which, without difficulty, is recognised as Glanders-Farcy, then might we believe that its origin was, like its development, of an inconstant and variable character. So long, however, as infective operation in passing from diseased to healthy animals always—when producing disturbance—does so of one unvarying and similar type in all things pertaining to essential characters by which such disturbance and change is recognised—particularly by the endogenous multiplication of this poison, or disturbance-creating medium, and the retention of the material so produced by the power of indefinitely propagating the same unvarying conditions of disturbance, change, and production of new material—so long must I refuse to believe—or rather, shall we say, so long must we continue to doubt that such specifidity and individuality of phenomenal conditions attached to disturbance of normal activities of any animal can result from aught save specifidity and oneness of character and source of inducing factor with resulting product.

The settlement of this question, of the oneness or diversity of the inducing factor in Glanders-Farcy, although it may by argument and reasoning appear to some as definitely settled in one direction or another, and to a larger number, if not settled, as placed at least in the region of high probability, must ever receive its strongest confirmatory evidence from experimental inquiry and correct registration of fact and observation. Such methods of investigation and of acquiring knowledge may not be ignored, they are alike the foundation and superstructure of medical knowledge. It is well-known to all of you, that the supporters of the autochthonous origin of Glanders in the horse—it has not, as far as I am aware, been asserted to originate in this way in man—without specifying particularly any causes or agencies which must be regarded as certainly productive of the development of those phenomena which we recognise as Glanders-Farcy, yet regard as capable of producing this condition all such as tend to debilitate and weaken the animal, to disturb, pervert, or impair nutrition, either in its primary or secondary steps. We are referred for corroboration of this view to the continued existence and erratic appearances of Glanders in all large studs, collections, or congregations of horses. In these situations we know that the ordinary laws which regulate healthy animal existence, those connected with work, food, location, etc., and the relation of these to other conditions, are often infringed, as also that common or ordinary ailments occurring under these influences are less amenable to medical management than where surroundings are more favourable. As all admit the truth of such statements, we are emphatically told that these conditions, not singly it may be, but as acting and re-acting upon each other, are not only sufficient to produce, but are the chief inducing factors in the genesis of Glanders-Farcy in the soliped. In this way do those who are satisfied of the correctness of this mode of development state their case, and account for the frequency and persistency of the disease in studs of omnibus and tramway horses, and in colliery establishments in civil life, and amongst animals conveyed in crowded transports, or confined in camps in times of war. I am aware that many who firmly believe in the Glanders-producing power of unhealthy and vitiating influences, are also satisfied that its dissemination is, in addition, accomplished by cohabitation and propagation from affected to

healthy animals. Now if we examine the statement of the question of the occurrence of Glanders in the most favourable cases, as apart from contamination from previously diseased, there is nothing positive to satisfy the critical that no other origin is possible or even rather probable. It is, first of all, to be noted that such statements of its origin are most authoritatively repeated, and most numerously attested from reports of its existence in large cities, large studs, and large congregations of horses. Now it is a well-known fact that amongst such large collections of horses brought together from widely separated localities, it is impossible to ascertain the previous history of these animals, or the relationship they have held previous to their incorporation with their present associates; this will hold true with every large number of horses at any given time. Now as we know that very many cases of Glanders exist in horses, and while existing are capable of communicating the disease by contact or otherwise to others, without exhibiting outward diagnostic symptoms; that they may continue in a stationary condition for long periods, and that while they thus exist diseased they may communicate it to others in which it will not assume the same quiescent form, but may rapidly develop fatal lesions, while the animals from which the contamination was received still live apparently well and able to execute their ordinary work. Knowing these facts, it is not to be wondered at that the sudden appearance of Glanders amongst large numbers of horses is often startling and difficult of explanation apart from the theory of its origin *de novo*, only because of the difficulty there may exist of placing the finger upon the infecting agent. Further, it does not disappear from such congregations of horses, simply, I believe, because—I will not say the skilled attendants are not acute enough to distinguish these dangerous animals, rather because they are not thoroughly satisfied of the great danger attendant on the tending of suspicious cases with the healthy, as also because of the pecuniary loss it would at once entail upon the owners were every animal slaughtered which exhibited suspicious symptoms, although it would probably be the more profitable in the long run. Again, if Glanders is a condition rarely absent from large cities and large studs of horses, we know it is as rarely seen in the country districts and amongst our agricultural horses. Certainly they are never collected in such numbers under the same roof, the variations, however, as to treatment in other points are not numerous enough or important enough to warrant us in expecting such marked exemption from any disease to which their fellows are so largely liable. Apart from the evils of location—which, we may say, are not always so marked as some would appear to think—horses in the rural districts are operated upon by all those depressing agencies (common to cities) as insufficient food, overwork, exposure, together with the debilitating influences of badly treated or neglected diseases, and yet they are not, as their urban fellows, decimated by Glanders. This I chiefly attribute to the fact that, first of all, importations and additions are rarely made of animals from a distance and of unknown origin, their ranks are chiefly recruited from the farm or district on which they have been bred, or where situated; second, the farm animals have so little contact with strange or distant horses. Glanders was more common amongst these latter animals in the days of our fathers, when agricultural horses were brought more into contact with foreign animals, owing to the distance to which produce had to be transported by horse-power. That in horses the liquid tissue, the blood, may be vitiated, and the animal activities disturbed, and certain phenomenal and tissue changes may assert themselves, variously known in the different forms of blood-poisoning and Pyæmia, from unwholesome extrinsic agents operating upon a debilitated constitution, as well as upon animals recognised to be healthy, and that the former are more likely to suffer severely and to exhibit peculiar states or

conditions rather than the latter, may not be denied; that such, however, apart from other agents, influences, or entities do produce Glanders, there is not, to my mind, sufficient evidence to prove. The actual inoculation with purulent fluids has been declared to produce Glanders; this too must be received with reservation. I am aware that instances or examples of the occurrence or production of Glanders in this way may be narrated by writers past and present; when, however, we think of the varieties of opinion and the contradictory nature of the experiments which have within the present generation been placed before the world in connection with this same disease, this is not to be wondered at. None of these cases, however, with which I am acquainted, but may be explained more satisfactorily upon other data, and in a different direction. Many of those who hold both to the idea of self propagation or development of the disease from the inter-action of materials within the animal upon agents or material from without, and to that of simple communicability, mediate or immediate, of the diseased with the healthy, are yet inclined to regard the former as by far the more potent and extensively operating factor. They fail to see, they say, the mode of the often extensive distribution of the disease, which, they are willing to admit, may occur by infection under favourable conditions and within limited areas. The difficulty appears to me always augmented or probably produced by the very limited and restricted views which we have so often taken of the power of communicability in cases of Glanders. Such limited views have been fostered by mistakes in experimentation, and by errors in interpreting the results of experiment. How many false deductions, for instance, have been made from the not unfrequent difficulties in cases of experiments to produce the disease by inoculation direct? That such mistakes or discrepancies occur we know, but it ought not to be forgotten that there are many conditions always operating when conducting an experimental inquiry which gives to the results of such experiments strange terminations, and which we are not altogether able to explain. Often, or at least not unfrequently, an experiment to produce Glanders by direct inoculation will fail, while another, generally esteemed comparatively uncertain, if not of doubtful power, will succeed. What more unlikely than that glanderous matter placed on and well up the Schneiderian membrane should fail to produce the disease, while the exhibition of the same material in bolus, and dissolved in water, developed an acute and fatal attack? These results are well shown in the following experiments:—

Experiment 1.—May 10th, at 4 p.m., gave a donkey a quantity of glanderous matter mixed with water. The matter was two days old, and obtained from a horse killed because affected with Glanders. May 12th.—Temperature 100° F. 13th.—Temperature 103° F. 14th.—Temperature 104·30°. 15th.—Temperature 103·20°. 16th.—Temperature 103°. At this latter day the animal was reported as not feeding well; it is also heard coughing, and frequently observed lifting the right hind leg. 17th.—Temperature 105·20°; appetite very fastidious; pulse 64; animal dispirited. 18th.—Temperature 101°. 19th.—Temperature 98°; takes little food; very dispirited, and frequently lifts hind legs. 20th.—Temperature 104°; depression great; no appetite; lymphatic glands under the jaw on the left side tender and slightly swollen; lifting and abducting of both hind feet now exists. 21st.—Temperature 104·20°; general symptoms the same. 22nd.—Temperature 103°; nasal discharge, mucous and white. 23rd.—Temperature 100°; nasal discharge copious from both nostrils; sinking from choking produced by nasal obstruction.

*Post-mortem* examination on 24th.—Tubercular-looking deposit extensively distributed throughout the nasal passage, producing great thickening

of membrane, and a highly injected state of it. Deposit extending into fauces and commencement of pharynx. Ulceration commencing here and there in the membrane covering the deposit, but no indications of such change in other parts of the membrane. Epiglottis and surrounding parts inflamed. No inflammation of windpipe. Lungs showed a wonderful collection of tuberculous-looking matter. Glands of the super-cervical region enlarged, and the lymphatic vessels in different situations swollen and delineated.

Experiment 2.—Some of the discharged material from the nostrils of this or another donkey which had been affected by administration of glanderous matter in bolus was carefully placed—with a wooden spatula so as not to abrade the membrane—well over the nasal septum of an apparently healthy animal—donkey. This was done on June 27th. When examined on 12th July, there were no visible effects. July 17th.—Still no evidence of disturbance. This animal continued well—being carefully watched—for three months, and was then killed for examination, when the viscera gave no evidence of disease.

Now I do not notice such experiments to attempt any proof that Glanders may be more surely communicated by the reception of the infecting material by the alimentary canal, rather than by its distribution over the membrane of the air passages, but rather as tending to teach us that the extensive distribution of Glanders in our large cities is explicable on other grounds than those of vitiated constitutions induced by adverse influences of diet, location, defective sanitary conditions, etc. With many of the active communicable diseases we are now certain—or as certain as we may be while we are able to see and handle the *materia morbis*—of their production only through the influence of the actually diseased upon the healthy, while as respects the propagation of Glanders from Glanders from contact, the position is absolutely certain. Developed in this manner, there is no uncertainty as to the nature of the resulting phenomena; these are not variable and uncertain, but constant and uniform. That Glanders will only produce Glanders, and not occasionally Anthrax or Pyæmia, is as certain as that wheat when sown will always produce wheat, and not occasionally oats or peas. The means of this actual contamination and conveyance of the infecting material from the diseased to the healthy are as widely spread and generally operative as the more readily recognised baneful and depressing agencies which are in action both within and around animals in any situation, and which are so largely believed to be chiefly in action for the development of this condition. Such contact, mediate and immediate, is maintained in many ways, by contact while at railway stations and other centres of traffic, by placing animals in paddocks, stables, etc., where horses previously diseased were located, by the general use of drinking-troughs, and by many other media and movements not less extensively operating and powerful if they are not so palpable and open to observation. In whatever light we look at the question of the genesis of Glanders, we must remember that upon the acceptance of one or other of these two expositions of the origin and spread of this disease, so terrible to both horse and man, must we stand forth as sanitary experts, prepared to state what measures are needful for its repression and extirpation from either isolated studs or over the entire country. So long as we feel satisfied that its existence may be accounted for by the inter-action of various operating agencies within and without the animal, so long must we be puzzled in every individual case to particularise these adverse and destructive agencies, and to devise means whereby they may be successfully combated; every separate outbreak, or rather individual case necessitating a special consideration, and probably a separate line of treatment—that although some

general principles of treatment and management may be laid down, in the details and practical manipulation of these we are left to wander very much as fancy or imagination may dictate; satisfied that, however much or strangely the healthy activities of an animal may be disturbed by the inter-action of unhealthful influences, or powers and structures enfeebled by disease, that the resulting phenomena may or cannot be those representing Glanders, and recognised as such. We have, when these phenomena present themselves, only one course clearly marked out for action, and along which we must travel in all attempts to arrest or eradicate the scourge.

So long as those other communicable epizoötics with which we have had a more extensive connection as sanitary officers—Epizoötic Pleuro-pneumonia and Foot-and-Mouth Fever—were regarded as capable of development by defective sanitary or other means believed to be operating on our stock, and the fact was disregarded that their propagation was entirely due to the conveyance of a living particulate contagium from the diseased to the healthy, so long were our efforts at repression unproductive of results. The same will be the history of Glanders; it has proved itself of that character already, and will prove itself yet more so, as enlightened and scientific views are embraced and disseminated, particularly regarding the pathology of the acute communicable diseases in all animals. When the disease was regarded as of doubtful power of propagation, by contact or otherwise, as it was in the early parts of this century, its existence was infinitely more extensive, and its ravages proportionately greater. Where at the present day could I, even if desirous, obtain such a collection of statements of opinions from widely scattered districts of our country respecting any point connected with this disease, as I now hold in my hand in the form of certificates and letters addressed to a former teacher of the school with which I am connected respecting the efficacy of a particular line of treatment? And why? not because veterinary surgeons are fewer and less employed about horses—they are more numerous and more generally employed—but simply because in rural districts the disease does not exist. The adoption of the opinion that it could be propagated and communicated from the diseased to the healthy wrought this change, and not improved sanitary conditions; these can only operate in its development when the seeds are already sown. So will the reception of and the acting upon the opinion, that not only may Glanders be developed from Glanders, but that it owes its existence only to Glanders, be accompanied with a perceptible lessening of its existence in those centres where now chiefly existing.

Professor WILLIAMS objected to the theory of the cause of Glanders always being contagion, and he still thought that cases arose *de novo*. He said that if these diseases arose solely from contagion, then there must at some period have been a provision made for them. He thought that there were conditions both within and without the body quite capable of producing Glanders poisoning, and he was satisfied that Glanders can originate *de novo*.

Mr. P. TAYLOR wished to know what we were to do when the two professors differed in opinion. What do we often find in a large stud of horses, where probably Glanders was unknown before, but the horses having to contend against bad food, bad drainage, overwork, etc.; they began to lose flesh, show diuresis, and when carefully examined Glanders is found to exist. Professor Robertson would say they had received infection, while Professor Williams would say there was sufficient in their condition and surroundings to produce the disease.

Mr. STORRAR was of opinion we ought to do everything we can to prevent contagion. There could be no doubt what the treatment should be, namely, destroying the diseased animals.

Mr. ELAM agreed with Professor Williams that Glanders did originate *de novo*. In his experience he found Glanders could be produced by bad food, old age, and hard work, the sanitary conditions being fairly good. Had seen many instances of it in a large 'bus company's stud. He understood that the disease in this stud had almost disappeared since good food has been given, less work, and employing younger animals. He had found Glanders to be variable in its mode of attack.

Mr. HOPKIN had in two instances found Glanders develop spontaneously: in one case the animal suffered from Diabetes. His own mare had Influenza, became debilitated, and ultimately Glanders developed. So far as he knew, they had not been in contact with glandered animals.

Mr. W. A. TAYLOR agreed with Professor Robertson; believes Glanders cannot arise spontaneously. He thought water-troughs a prolific source of spreading the disease. In tramway and 'bus stables he thought the disease was ever existent.

Mr. DACRE expressed the opinion that Glanders arose spontaneously, and cited a few instances, where he thought the horses had not been in contact with diseased animals.

Professor MCCALL thought Professor Robertson would find, practically, his theory was merely a theory after all, although a safe and good one. There was no doubt Glanders did arise spontaneously. He had condemned 200 horses belonging to the Glasgow Tramway Company, and had had no more cases for the last two years. He gave some cases illustrative of its spontaneity. No combination of circumstances can produce the results of a specific poison. He feared Glanders would be found to follow bad food, bad drainage, overwork, old age, etc.

Professor ROBERTSON, in the course of a lengthy reply, said he was satisfied that the absence of Glanders in the country districts is not due to any improvement in the sanitary arrangements, but to our increased knowledge of its propagation.

On the motion of Professor WILLIAMS, seconded by Mr. MORGAN, a vote of thanks to Professor Robertson was carried by acclamation.

The members afterwards adjourned to the Adelphi Hotel, where a recherchè dinner was provided. After the cloth was removed, the usual toasts followed, interspersed with some capital songs, a most enjoyable evening being spent.

J. W. T. MOORE, *Hon. Sec.*

## LANCASHIRE VETERINARY MEDICAL ASSOCIATION.

THE annual meeting and dinner of this Association were held Friday, February 24th, at the Clarence Hotel, Manchester.

The President, Mr. Alexander Lawson, occupied the chair, and the following members and friends were present, viz.: Geo. Fleming, Esq., President R.C.V.S.; Messrs. T. A. Dollar, P. Taylor, T. Greaves, T. Taylor, W. A. Taylor, T. Hopkin, S. Locke, W. Dacre, E. Faulkner, Jno. Lawson, Jas. Lambert, J. W. Ingram, F. F. Crawford, J. B. Wolstenholme, Wm. Leather, C. W. Elam, G. Morgan, S. O. Langley, J. W. T. Moore, W. Broughton, W. Woods, F. H. Smicock, B. H. Russell, J. B. Taylor, H. J. Cartwright, J. Bunnell, C. E. Challinor, Jas. B. Polding, A. H. Darwell, H. Ferguson, —. Packman, A. M. Michaelis, R. Roberts, T. B. Stone, W. Whittle, E. H. Leach, and Dr. Wood.

Letters of excuse were received from Sir Frederick Fitzwygram, Bart., Professors Brown, McCall, Robertson, Williams, and Walley, also from twenty-four other members and friends.

The minutes of the last meeting having been read and confirmed, the following gentlemen were unanimously elected members of this Association,

viz.: Donald Gregory, of Darwen; William Leather, Liverpool; and Jas. Eltoft, Lancaster.

Mr. Thos. B. Cockshoot, of Hyde, was nominated for election as member.

After discussion on the forthcoming election of members of Council, R.C.V.S., it was resolved "That this Society, regretting that the sister island is at present unrepresented in the Council, shall aid the nominee (Mr. T. H. Simcocks, of Drogheda), of the North of Ireland Society;" and the following gentlemen were appointed as Election Committee, viz.: Messrs. Alexander Lawson (President), W. A. Taylor, T. Hopkin, E. Faulkner, W. Dacre, S. Locke, and J. B. Wolstenholme.

The PRESIDENT, who was loudly cheered on rising, then read the following address:—

Gentlemen,—I must take this opportunity of thanking you for electing me as President for another year of office; and although it is usual to give an inaugural address, setting forth the fruits of our labours throughout the profession during the last twelve months, I do not intend to trouble you on this occasion with any very lengthy remarks, inasmuch as I went fully into most matters last year, and I consider that too much time has already been lost in our Society at one or two meetings in discussing veterinary politics, to the exclusion of papers and communications on interesting cases, which is a valuable means of improving professional knowledge. I trust that the latter may in my second year of office be the rule, and not the exception, at our quarterly meetings.

I am very pleased to see so large a gathering, and take it as an earnest of the intention of the members of this Society to further to their utmost the best interests of our profession.

The year 1881 will long be remembered in the annals of the veterinary profession as the one in which Parliament granted to us a Bill to protect our title, and to prevent unqualified men from assuming what they had no moral right to, under a very heavy penalty. I may be wrong, but still it is my opinion that this Act will in future years always be referred to as one of the greatest benefits ever conferred upon our profession.

Some of our members may not agree with all the details of this Bill; others may think it does not go far enough, and that it ought to have prevented men from practising under any title, without having passed the necessary examinations, and also that a clause should have been inserted, exempting us from the necessity of serving on juries; but remember, few people get all they want, and for my part I am quite satisfied to leave the future in the hands of the Council of the R.C.V.S., who as a body work hard and spare no expense in advancing any measure for our united benefit.

It is with great pleasure I see in various parts of the country veterinary surgeons banding themselves together and forming new societies in districts hitherto unrepresented, notably one in Kent, presided over by Mr. Fleming, another in the north of Scotland, and lastly one in Dublin, named the Irish Central, the chair of which is occupied by Mr. Lambert. I trust they all have a prosperous future before them, and there is no doubt that the more members are brought together through societies, the more knowledge will be gained and increased friendly feeling fostered towards each other.

I am sorry the profession is not rich enough to subscribe funds sufficiently large for the purchase of a building, in the place of the house now rented as the home of the Royal College in London; but I hear on authority that a very influential deputation is to wait on Earl Spencer with a view to inducing Government to do something to further this object, and I am in hopes of its having a successful issue. Nothing is more wanted than a substantial building, with good accommodation for members during their visits to London, and which they can look upon as the headquarters of the profession.

Most veterinary surgeons now take such interest in their calling, that when two or three meet its politics and prospects become an almost absorbing topic of conversation. This surely is a healthy sign, and a good augury for continued progress; and we may safely say that in no profession is there more life and movement than in our own: this is apparent to all of us, and it is one of the greatest advantages of such societies as this that the various questions which are constantly cropping up can receive free discussion and be subjected to the healthy conflict of different opinions, which enable us to see every case from all points of view.

Gentlemen, I therefore trust you will give me your hearty co-operation and attention, during the next twelve months, that we may maintain the success of this, one of the largest societies in our profession. I now conclude, thanking you very much for your considerate attention.

A vote of thanks was unanimously passed to the President for his able paper.

Mr. GEO. MORGAN then read the following paper on the Board of Examiners:—

Gentlemen,—By the courtesy of your esteemed President, I am enabled to bring under your notice this evening a question differing in some respects from the ordinary subjects discussed at these meetings.

I refer to the composition of the Examining Board of the Royal College of Veterinary Surgeons, a question which is of more consequence to the profession than may appear at first sight.

Several alterations have been made in its composition since the Charter was first obtained, one of the most important being the determination of its existence every five years, so that any alteration of its component parts may be made which five years of fresh experience may have rendered necessary for the benefit of the profession.

This is one of those years when re-election is necessary, and a fitting time for discussing suggestions as to change.

As you are aware, the appointment of examiners is in the hands of the Council; but I feel assured that any expression of opinion made by the profession will be duly considered by the Council, and form an important factor in determining the course they should pursue in the election of that board.

Now there are certain changes which in my opinion might be made, with advantage to the profession: these I shall endeavour to explain, and leave it to the meeting to say whether they are practical or desirable.

We all know that ever since veterinary examiners were admitted on the board they, as a rule, have been selected from the Council; that is, members of the Council elected, or at least helped to elect, themselves. Had they resigned their position as Councilmen on their election as examiners, I do not know that I should have so much objected to the practice; but they never have done so: they retain their seats at the Council, and of course receive the fees, and their presence there prevents the free discussion on many points which would otherwise arise, from a fear of giving offence. At present the Council have no report of the examinations at all, except results—how many passed, and how many were rejected; and if any member of Council had the temerity to ask for any further information, well, he may ask, but he will not receive, even in the face of bye-law 35, which says "That in cases of rejection the Board of Examiners shall report to the Council what further period of study ought to be required of a student before he be allowed to present himself for examination;" a very useful and sensible regulation if put in practice.

Now I ask those members of Council present, How often has this bye-law been complied with? My answer is, Never; and my argument is that were

the examiners not present, not one or two, but the whole Council would insist on it being carried out.

No one can have a higher opinion of the great ability and unselfish character of the present examiners than myself, and I should feel extremely sorry that one word of mine should give any of them the slightest uneasiness. These remarks are not intended for the present examiners any more than for the past or those who may succeed them. I contend that the system on which they are appointed is rotten, and ought to be abolished. You may consider it as you like, still they are the paid servants of the Council as much as the Secretary, and as such they have no right to be interfering in matters in which they are pecuniarily interested—a thoroughly established principle of the British Constitution.

In the government of the country great care has been exercised in this direction; so much so that any member of Parliament that accepts office that *may become a place of profit*, even although at the time no salary may be attached to it, has to resign his seat and go before his constituents, while any person interested in a Government contract is disqualified for a seat in the House.

In municipalities, select vestries, local boards, or boards of guardians the same rule holds good, for in neither of these are men qualified for a seat as long as they receive a share of the ratepayers' money. Why, it was only the other day that a juror was disqualified at an inquest on the body of a criminal that had been executed, because he supplied the gaol with milk.

Now the Council are the guardians of the professional exchequer, and as such ought to be, like Cæsar's wife, above suspicion. However vulgar it may be to introduce money matters, I feel compelled to do so, for it is hardly creditable that a profession such as ours should at the end of thirty-seven years have only a paltry sum of £900 standing in the name of trustees, and a small balance at the bankers, while the examiners, many of them members of the Council, have pocketed thousands.

In the ten years ending 1880 the examinations cost upwards of £6,000, and the cost of each new member registered, which in 1871 was £5, has risen in 1879 and 1880 to £10, without any corresponding advantage to the profession being apparent. In 1859 fifty-one new members were registered, at an expense of £378: twenty years after, in 1879, seventy-one members cost £723. Were these examination expenses reduced, the Council would soon be in possession of funds sufficient to build a college without the humiliating necessity of going cap in hand to Government or any one else, begging the wherewithal to do so.

I have been met with the argument that the best men in the profession are elected on Council, and that the best men are required for the examiners, and are to be found only in the Council. This looks very plausible, but there is an old proverb that says "there are as good fish in the sea as ever were caught," and there are plenty of good men in the profession outside the Council as any in it, equally able and willing to discharge the duties when an opportunity offers as those who do so now, and I think an opportunity ought to be made for some of them by excluding examiners from the Council—at any rate those who require to be paid for their services.

The next point is, "Has the time arrived for the appointment of examiners to be made solely from the veterinary profession?"

Hear what our old friend Mr. Cartwright, of Whitechurch, wrote on this subject forty years ago.

After detailing certain abuses which have since disappeared, he adds, "One thing I reluctantly touch upon, and that is the medical examiners. On this I am, like every one else, thankful for their past services, but canno help thinking that their services could now be readily dispensed with, for i

would be a disgrace to the profession if there were not a sufficient number of veterinary surgeons competent to that task without their assistance."

At the time this was written the Examining Board consisted solely of medical men, and no doubt we owe them a deep debt of gratitude for the fostering care bestowed upon us in infancy, which lasted over half a century, that is from 1792, when the Royal Veterinary College was established, to 1844, when the first Charter was obtained, and which period we celebrated by dispensing with a part of our infantile nurses; and surely if we ever mean to arrive at maturity, now is the time, when the title of "Veterinary Surgeon" has been protected by Act of Parliament, to mark this the second epoch in the profession by casting aside the rest of our swaddling clothes, and getting above the feeling of dependence on others for support, a feeling which has always a greater tendency to lower than elevate.

It may be said that there would be a difficulty in finding men in the profession capable of examining in the subjects taken in hand by the medical men; but this is only supposition, a mere assertion, without any argument to support it. There are scores of well-educated, persevering, and scientific men in the profession who would in a very short time qualify themselves for the office, were there a possibility or a probability of their becoming an examiner; and I believe the public would respect us more if it were known that we possessed in our ranks talent enough to complete the education of our students, without calling in the aid of men who have oftener than once boasted of their entire ignorance of veterinary matters.

On this point I claim the support of my friend Mr. Greaves, for I find that in the *Veterinarian* for this month he states that at the pass examination, medical men are "utterly incapable of rendering the slightest assistance," and most of us will agree that the pass examination is the most important of all. Let us then endeavour to dispense with their services in the future, and ask the Council to select the examiners solely from our own members.

Now these are the words of a very experienced member of Council, and a past President, who has had the opportunity of watching during his year of office the whole of the examination from beginning to end; and however much we may differ in our opinions at times, I must accord him my meed of praise for having attended those examinations as the friend of the student, for when the President deserts him at an examination time he is in a worse position than a criminal before a court of justice, who is always entitled to some one to speak for him.

There is still one other matter in connection with this question that I should like thrashed out, or at least ventilated: that is the question of honorary examiners.

At every election of members of Council there are more candidates than vacancies. Now there is quite as much honour in being an examiner without pay as a Councilman without pay, and I must confess to a poor knowledge of human nature if I am wrong in supposing that men could be found in the profession, with ample means, abundance of talent, and plenty of spare time, to conduct at least the practical examinations, for the pleasure and honour of doing it.

Again, I shall be charged with vulgarity and meanness in daring to suggest that men should do such duties without being paid; but I only say such men could be found who would consider it no mean thing to be an examiner without pay, and men equally capable of doing the work as those who only reckon how much they can make out of it.

Again, I am told such diplomas might be got, but they would be worthless; they would be both cheap and nasty, and men possessing them would not be able to secure the same standing in their profession as if their diplomas were signed by well-paid examiners.

But I think I shall be able to convince you that such an argument is perfectly groundless.

During the past year a board of examiners in the northern part of the kingdom ceased to exist, not from lack of talent, or unwillingness to perform the work, but from circumstances over which they had no control leaving them nothing to do; and many here know as well as I do, if not better, about the amount of fees paid and the quality of the work performed.

I have no wish to boast because I had the honour of being examined by that board, but I dare challenge any other examining board in Great Britain to produce such a galaxy of men who have made their way in their different spheres as men who have been examined by that despised board, appointed by the Highland and Agricultural Society of Scotland, at the request of the late respected Professor Dick.

Now these men loved the work, and gloried in performing it, and one who had a good idea once said the whole remuneration was a vote of thanks and a good dinner; yet amongst those who owe to that board their first introduction to the public as veterinary surgeons are the present President of the Royal College of Veterinary Surgeons, as well as the distinguished General who occupied the chair so ably for the three previous years, the Principal Veterinary Surgeon to her Majesty's Forces, the Principal of the Royal Veterinary College, the Principal of the Glasgow Veterinary College, the Principal of the New Veterinary College, Edinburgh, the Principal of the Ontario Veterinary College, the Principal of the Montreal Veterinary College, the Principal Veterinary Professor in the University of Ithica, to say nothing of many others, and some who have gone over to the majority, such as Professors Barlow and Strangeways, names that will long be cherished by the profession as men distinguished in their day and generation; and I may say, in addition, that more than one-third of the present Council of the Royal College of Veterinary Surgeons have been examined by this board, which, as I stated before, has been recently dissolved; and I think I have shown that, however cheap they worked, they have done quite as good work as those who only look after the loaves and fishes; and my argument is that such men are still to be found in the profession who would willingly give their services if an opportunity were afforded them to do so, and I believe that the name of a successful practitioner on a diploma will bear more weight with the public, no matter what fee he receives, than that of a medical man, no matter how much he charge for his autograph.

It is not the money that a diploma costs that constitutes its value, but the teaching and the examination that precedes it, and in support of this view Mr. Fleming once said that "the cheap certificate of Professor Dick's school may become as potent in the hands of a man who has the interests of his calling at heart as that of any other college in Europe," and hoped the day was not far distant when the amount of money paid for a diploma would not be a fancied guarantee for the superior qualification of the owner.

But enough has been said to introduce the question. The points on which I wish to elicit opinion are—

1st. Should the Examining Board be composed entirely, or as far as practicable, of veterinary surgeons?

2nd. Should any paid examiner be a member of Council?

3rd. Is it advisable to try hon. examiners in branches of the examination?

In the very brief discussion which the time permitted, Mr. Peter Taylor thought that Mr. Morgan's remarks should have been made in the first place before the Council, R.C.V.S., and enforced the opinion that the present Board of Examiners were well-chosen, most distinguished, and honourable men.

Mr. Fleming, referring to his dual capacity as Councilman and examiner, pointed out the advantages to the profession in having the examiners repre-

sented at the Council table. He thought that the expense of three examinations in the year was altogether too much for individuals in the capacity of honorary examiners. He also thought that veterinary surgeons should, as far as possible, form the teaching staff at our schools; especially was this necessary in the subject of physiology, and he had noticed all along that questions relating to the various modifications of the digestive and other processes as seen in our different patients were rarely, if ever, asked. He was quite sure that if inducements were offered to veterinary surgeons they would qualify themselves for performing the function of examiner in most, if not in all the subjects, alike to the credit of themselves and that of the profession.

Mr. THOS. GREAVES coincided with the foregoing remarks, that if veterinary surgeons knew that they could attain to the post of examiner they would qualify, and make themselves fit to examine in all the subjects required.

A vote of thanks was unanimously given to Mr. Morgan for his valuable paper.

Mr. HOPKIN then exhibited his dental instrument, by which overgrown molar teeth in horses may be cut. The instrument consists of a hollow shaft, up which a piston may be forced upon a cutting edge, which is opposed to another fixed cutting edge, the overgrown molar being between the instrument, at this extremity much resembling the same portion of "Gowing's chisel."

The members and guests afterwards took dinner, at which the usual loyal and patriotic toasts, together with those peculiar to our calling, were duly honoured; music and a number of excellent songs enlivened the hour, and a most enjoyable social evening was the result.

JNO. B. WOLSTENHOLME, *Hon. Sec.*

## MONTREAL VETERINARY MEDICAL ASSOCIATION.

THE regular fortnightly meeting of this Association was held in the Lecture Room of the Veterinary College on January 19th, Mr. M. C. Baker, V.S., in the chair.

After preliminary business, Mr. JOSEPH SKALLY, Boston, read a communication, in which he described a case of Purpura Hæmorrhagica treated by himself. The treatment consisted of generous diet and repeated doses of chlorate of potash. The animal recovered perfectly under his treatment. The case elicited considerable discussion among the members.

Mr. PAUL PAQUIN described an interesting case of a monster calf which came under his notice last summer, which consisted of a fleshy mass resembling a mole.

Mr. DONALD CAMPBELL, St. Hilaire, then read a most interesting paper on the "History and Breeding of the Horse." He went very full into the history of the different breeds of animals now in use for domestic and other purposes, and described the points in form, colour, age, etc., to be observed in the selection of stallions and mares for breeding purposes. For speed and endurance what is wanted is bone, muscle, and high-spirited, nervous horses; while for draught, the more phlegmatic, heavy and quiet breeds are those best suited. He considered the Clyde, crossed with our Canadian mares, were the best suited for Canadian climate, and the half-bred horse was best as a general-purpose horse. An interesting discussion followed, in which some of the members considered that the Percheron Norman horse was superior to the Clyde as a draught-horse. After votes of thanks had been passed to the readers of the papers, the meeting adjourned.

The next fortnightly meeting was held on Thursday evening, February 2nd, the second Vice-President, Dr. Wm. McEachran, in the chair.

Mr. C. B. ROBINSON read an essay upon "Septicæmia," giving a full description of that interesting disease, and the best means to be adopted for

its prevention and cure. It was listened to with marked attention throughout, and, at its close, a lively discussion ensued.

Professor Wm. OSLER then read an account of an experiment recently conducted by himself, with the assistance of Mr. Clement, at the Veterinary College, in which fifty segments of the *Tænia mediocaneliata*, or common tapeworm of this country, had been fed to a calf three days old. Accurate observations of the temperature and pulse of the animal were taken daily for seven weeks, at the end of which time the symptoms indicated that the parasites had entered upon the cystic stage, or were "measled." The calf being slaughtered, the *post-mortem* revealed the presence of the entozoa in various parts of the body, but particularly in the voluntary muscles. Where they appeared as little translucent cysts, about one-eighth of an inch long, with an opaque spot in the centre, which was the parasite or "measle." Specimens of the muscles containing the cysts were exhibited, and the speaker referred to the curious fact, that, although the tape-worm derived from measly veal was far more common in this country than that derived from measly pork, yet measly veal was rarely if ever detected unless, as in this case, from experiment, while measly pork was comparatively of frequent occurrence. He thought this was probably owing to the greater transparency of the cysts in veal than those in pork, and their consequent liability to be overlooked. Tape-worm is an entirely preventible disease, and it is a disgrace to the community that what could be entirely eradicated by proper hygienic measures should be as common as it is. He hoped that a systematic inspection, such as could now be carried out at the abattoirs, would do much to decrease the number of cases of this common malady. In answer to a query by Professor D. McEachran, Professor Osler stated that there were probably four or five hundred cases of tape-worm in the city of Montreal, and that nearly every medical man in the city had one or more cases under treatment.

Mr. McEACHRAN, after complimenting Professor Osler on the value of this scientific investigation as one bearing very strongly on public health, and apart from the value of such investigations to the students of both human and veterinary medicine, he had no doubt it would have a beneficial effect in demonstrating the actual necessity for proper scientific inspection of the meat supply. We have just heard that measly pork is often detected, whereas measly veal or beef was rarely discovered. Yet we are informed by Prof. Osler that the tape-worms produced from beef measles constituted nearly all the cases in the city, proving very clearly to his mind that measles in beef was far more common than in pork, and the fact of these not being found as often, was due to the want of inspection, as explained by Dr. Osler, and as they could see for themselves by the specimens of both, which had been shown them, while pork measle was opaque, white, and easily seen; beef measle was smaller, transparent, except its centre, hence not so easily discovered by cursory observation. He described the symptoms produced by tape-worm as being dreadful, leading to great despondency, mental disturbance and all the horrors of the most aggravated dyspepsia. He congratulated the members of the association on being privileged to listen to such a scientific paper on such an important subject as that just delivered in their hearing.

After a few complimentary remarks by the Rev. Mr. Killigan and others, a cordial vote of thanks was tendered to Dr. Osler and Mr. Clement, and also to Mr. Robinson, for their instructive papers.

## THE NORTH OF IRELAND VETERINARY MEDICAL SOCIETY.

A MEETING of this Society was held in the Thistle Hotel, Belfast, on the 17th March. The meeting was attended by Mr. T. H. Simcocks, Drogheda

(President), in the chair; Messrs. Dunlop, Kidney, and Mathews, Belfast; Kernohan, Ballymena; Sandford, Moneymore; Browne, Coleraine; T. Drummond, Dundalk; Miller, G. V. Inspector (visitor), and the Secretary, Portrush.

Owing to engagements at the Assizes, several members were unavoidably absent.

Apologies for non-attendance were received from the following gentlemen:—Messrs. Doris, Cookstown; Thomson, A.V.D., Dundalk; Simpson, G.V.I., Newry; Bradley, Newry; Lewis, G.V.I., Larne; Thompson, Lisburn; Taylor, Seaforde; Moir, Armagh; Dunlop, Downpatrick, and Ball, M.D., Belfast.

The minutes of the previous meeting were read by the Secretary and unanimously approved of.

A copy of a letter from Mr. George Fleming had been inserted on the minutes, in which he expressed his warmest thanks and appreciation in having been elected a Honorary Associate of the Society. Mr. George Browne was elected a member.

The President then delivered his inaugural address as follows:—

Gentlemen,—In rising to open the fourth year of our existence, I find a perhaps not unnatural difficulty in framing language adequate to the expression of the feelings I experience at the honour you have thus done me, in placing me in your Presidential chair. I assure you I highly prize the compliment you have paid me in electing me as President of this the oldest veterinary society in Ireland, and I trust, when my year of office terminates, you will find that your confidence has not been misplaced, but that under my humble guidance the tree, rooted and thriving during the past three years, may continue not only to throw out new shoots and produce fresh branches, but that the genial shade afforded by the foliage of professional reunion and fraternal harmony may still continue to spread its influence over us, both collectively and individually; that our Society may not only prosper as a professional association, but that the more intimate social relations which it engenders may result in such natural confidence and trust as will tend to the benefit of ourselves, and add to the dignity of our profession. The past year has been a singularly eventful one for the veterinary profession, not only in the United Kingdom, but on the Continent; and the recent discoveries of our French colleagues have done much to raise the reputation of veterinary science. In these countries it has been too much the custom to regard veterinary surgeons as mere "horse doctors," whose highest function was to bleed, blister, and physic the animals entrusted to their care; but the experience of recent years goes far to show that in future our mission will not be so much to cure as to prevent disease, and the results of the investigations of MM. Arloing, Toussaint, Cornevin, Thomas, Galtier, and other French veterinarians, point out to what practical utility the researches of scientific men can be adapted. I need scarcely say that Charbon, and even Hydrophobia, has been proved to be a preventible disease, and Toussaint's investigations have resulted in very important discoveries as to the transmission and prevention of that scourge of these islands, Tuberculosis.

In these countries, though no remarkable discoveries may have been made, the application of the doctrine "that prevention is better than cure" has led to an extraordinary diminution of the amount of contagious disease amongst the lower animals. The enforcement of the provisions of the Contagious Diseases (Animals) Act has stamped out Rinderpest, Eczema Epizoötica has been unknown in Ireland for years, and Pleuro-Pneumonia is rapidly diminishing, being confined to a few districts, and its dissemination prevented by the vigorous action of the authorities. True it is that some persons, either from ignorance or worse motives, declare that the enactment of a

measure to prevent the spread of contagious diseases amongst animals was unnecessary, and that its action occasions considerable embarrassment. I fully admit that, not unfrequently, individuals are put to some inconvenience and, it may be, have to suffer loss by the carrying out of the Act; but the experience of the past few years has so conclusively proved the vast benefits that have been derived from it, that the public generally are now beginning to appreciate the Contagious Diseases (Animals) Act of 1878. No doubt, in many respects it is open to amendment, but on the whole it has proved a most useful piece of legislation, and has added largely to the national wealth by lessening the loss from preventible animal diseases.

Whilst on this subject, I cannot refrain from calling attention to the unfairness and impropriety of permitting unqualified persons to be appointed as inspectors under the local authorities. It is bad enough to have this done when the services of a veterinary surgeon are not available, but when a professional man can be obtained it seems disgraceful that a quack or farmer who may be thoroughly ignorant of disease should be selected; and the manner in which these appointments are sometimes made is very forcibly exemplified in a recent instance, in which the chief qualification of the individual elected as union cattle inspector, was that he had no other means of living, and if not appointed would become a burden on the rates. Surely absurdity could no further go; but whilst such things are permitted, there is but slight encouragement for qualified practitioners to establish themselves in some country districts.

In saying that the past year has been an eventful one for our profession, I cannot leave out of sight the circumstance that, at length, by the passing of the Veterinary Surgeons Act, we have obtained Parliamentary recognition of our clai n to be ranked amongst the liberal professions, and that in future the title of veterinary surgeon will be the sole property of graduates of the Royal College of Veterinary Surgeons. This Act is distinctly a step in advance, and is likely to be fraught with advantage to the public and ourselves; for the interests of the public and our profession are inseparable. Hitherto the title of veterinary surgeon was not protected by legislation, and the consequence was that the public were imposed upon and our profession degraded by the ignorance and cruelty of uneducated impostors who had wrongfully assumed the title of V.S. This cannot occur henceforth; and so in future a better informed and more liberally educated class of men will enter our ranks, and add to the respectability and dignity of our calling. Some members of our profession think that we should at once have obtained the exclusive right to the title of veterinary surgeon, but I believe every fair-minded man will admit that the Act of last session goes as far as justice would allow, and if some unqualified persons who have already assumed the title are permitted to retain it, it must not be forgotten that they do so subject to certain restrictions, and by long usage they have obtained a prescriptive right to it. The critics who would deprive many respectable men of a means of livelihood should remember that it was with great difficulty, and after considerable opposition, that the Act became law; and recent revelations at a meeting of the Notts Chamber of Agriculture lead me to believe that had the measure not passed last session, the opposition would be intensified, and (if any) an emasculated and comparatively worthless bill obtained. It is a singular fact that some twenty years ago a bill, somewhat similar to the present Act, *but not retrospective in its provisions*, could not become law; but now, when we have obtained a measure which confers substantial benefits on our profession, some persons still profess themselves dissatisfied. For my part, I am of opinion that we have got all we were entitled to, and I have no doubt but that in future years the profession will have reason to be grateful to those

gentlemen, chief amongst whom is the worthy President of the R.C.V.S., Mr. George Fleming, whose unwearied assiduity resulted in the Veterinary Surgeons Act becoming the law of the land.

In the matter of veterinary education, great improvement has been manifested of late; and if in this regard *festini lente* seems to have been the motto, there can be no doubt but that substantial advances have been made, and the institution of the new Fellowship degree is likely to induce men to continue their technical studies after they have obtained their diplomas.

Considerable discussion arose some short time ago, in consequence of the Council of the Royal College of Veterinary Surgeons insisting on a year's pupilage from each student before becoming qualified; and I think it is a matter of regret that some arrangement of this kind cannot, owing to a technicality, be carried out. It is, I believe, admitted on all hands that none of the schools possess the means of giving their *alumni* a thoroughly *practical* knowledge of many of the details of the veterinary profession, and I earnestly trust that a scheme may be formulated and put in execution, by which each pupil prior to obtaining his diploma may be obliged to spend AT LEAST one year with a practitioner. By so doing he will learn much which the schools cannot teach; and though I am as strong an advocate as any one for scientific knowledge, I feel confident that theory, unless accompanied by a perfect acquaintance with the everyday details of our art, is likely to lead to results alike unpleasant and unprofitable.

More than twenty years ago, Professor Gamgee observed "that no surgeon or physician, indeed no member of any profession, became profound from mere reading," and "that theoretically it is quite possible to conceive as a talented veterinarian 'an exquisite' afraid to spoil his hands by discolouring them, and when on horseback looking more like a tailor than a huntsman; but practically we cannot picture such a man as likely to be worth his bread and cheese." He then points out the necessity for a youth, before he goes to college, being a "fair horseman, knowing something of cattle, horses, dogs, pigs and sheep—their needs and habits," and further on the learned professor very pertinently observes that "it often happens that when an evil is admitted, its continuance is tolerated in consequence of the difficulty of ascertaining its cause, and applying the remedy."

Now it is almost universally admitted that the young veterinarian whose sole experience has been gained at college, is in the early years of his practice deficient in practical skill. If this be so, his deficiency is due to some defect or want in the teaching at the schools, and as unless the present system at those establishments be very greatly altered, the only remedy for this state of things is a compulsory apprenticeship with a veterinary surgeon. Professor Walley says, that practical men make the worst students; but who, I ask, make the most indifferent practitioners? Is it not those youths who, glorying in the possession of a recently acquired diploma, are as full of science as they are of self-importance, but as ignorant of practice as they are of theology?

One of the strongest arguments against compulsory pupilage is that it would entail an increased expenditure by the aspirant; but if apprenticeship is necessary—and I think it is—I fail to see that this is a matter of which we should take cognizance. It might as well be said that because five sessions are more expensive than a lesser number, therefore three would be enough. Unfortunately, our profession is not one in which large emoluments are usually gained, but the additional cost incurred by a year's residence with a practitioner would be more than repaid by the useful information gained by the student. Now that the State has thrown additional responsibilities on us it is necessary to have veterinary education as thorough as possible, and to be complete a much greater amount of sound

practical knowledge must be acquired by the student than has been too frequently the case heretofore. Bacon says, "They be the best chirurgeons which, being learned, incline to the traditions of experience, or, being empirics, incline to the methods of learning;" and certainly the opportunity of acquiring a little more experience, and not less "learning," is needed by most of the present race of veterinary students.

In reference to this subject of education, there is one matter to which I would specially wish to call your attention, and that is the propriety and necessity of the preliminary educational examination being placed under the control of our central governing body.

It seems to be little short of ridiculous that each school should fix the standard for its own pupils, and that while in one Latin or French is required, in another the literary qualification demanded is so low that a national schoolboy of twelve years of age who failed to pass it would be disgraced. Admitting that all the professors are anxious to promote the cause of education, we must remember that the veterinary schools are self-supporting establishments, depending largely for their existence on the fees obtained from pupils, and under such circumstances it is certainly anomalous that the direction of the preliminary examination should be left in the hands of those who are likely to suffer financially by the rejection of a candidate, and unquestionably the amount of literary knowledge required in some cases is entirely too low, and is, in these days of progress, much less than what should be exacted from persons desirous to enter a liberal profession.

The minimum standard of educational acquirements is, in the legal and medical professions, subject to the approval of their respective governing bodies, and I fail to see any reason why a like rule should not apply here.

During the past two years much has been said and written as to the advisability of establishing a licensing Veterinary College in Ireland. Now I yield to no man in my love of country, but so long as Ireland remains an integral part of the United Kingdom, this project will meet with the most strenuous and uncompromising opposition from me. I can see no objection to a *teaching* school being started in Dublin. Whether it would be a monetary success I will not venture to say; but, like the President of the Irish Central Veterinary Association, I am of opinion that such an institution should be educational and not diploma-giving, and that there should be but one licensing body for Great Britain and Ireland.

In the nature of things, our profession is one in which a large number of graduates cannot yearly pass, and the establishing of a second licensing body would probably be to the injury of all parties concerned, as, in all likelihood, it would lead to unhealthy rivalry and deterioration in the standard of qualification for a diploma; and nowadays, even amongst medical men, the opinion is gaining ground that a one portal system of examination is desirable.

From my personal experience, and as the result of my inquiries, I can safely say that much misapprehension exists as to the necessity of a largely-increased number of veterinary surgeons in Ireland. It is a well-known fact that many of our best practitioners in country districts are unable to live by their profession, and have to add to their incomes by following other occupations. This being so, in a very few years it would be found that the income which an Irish veterinary school would derive from pupils would be very small indeed.

Not a little rubbish has been said and written about the impropriety of having a number of English examiners travelling over to test the knowledge of students educated in this country. If a school were in existence here, no doubt the Royal College of Veterinary Surgeons would select Irish practitioners as examiners, and speaking of this calls to my mind a matter of considerable importance, and that is the present constitution of the Board

of Examiners. You are all, of course, aware that about one half of the Board consists of medical men. I freely admit that in the past we have derived considerable advantage from our associations with the sister profession, but I am strongly of opinion that the time has now come when the members of our own body corporate are sufficiently skilled and intelligent to act as examiners in almost every subject in the educational curriculum. I confess that in botany, and perhaps in chemistry, it may be desirable to retain the services of specialists as Examiners; but in physiology, histology, pharmacy, materia medica, and all other subjects, members of our profession can be found whose services would be as efficient and as valuable as those of medical men. It would be extraordinary if, after nearly forty years' existence as a chartered profession, we are unable to select from our own ranks men capable of correctly ascertaining the acquirements of aspirants for the diploma; and when we remember that the Examiners for the higher degree of Fellow are all veterinary surgeons, surely the services of outsiders can be dispensed with on the ordinary examination board. This is a reform which I hope to see made; and when the Council of the Royal College think proper to effect it, I trust that they will recognise the claims of the Irish branch of the profession to be represented amongst the Examiners.

And now permit me to say a few words on a most important branch of professional politics. I refer to the constitution of the Council of the Royal College of Veterinary Surgeons, and the necessity of this country being represented on it. At present the Council consists of thirty members, of whom four are Army men, two each reside in Scotland and Yorkshire, thirteen in London and its vicinity, six in Lancashire, and three in the other English counties, but Ireland does not send a single member to our professional parliament. You will probably agree with me that this is not as it should be, but we ourselves are much to blame for the state of affairs, as until very recently scant interest was taken in such matters on this side of the water. By the latest edition of the Register, I see that the number of veterinary surgeons in Ireland is about the same as in Lancashire. Surely if that great county is able to return six members of Council, we should at least endeavour to secure the election of one. In common justice, Ireland should be represented on the governing body, as no one can so well put forward the wishes and secure the accomplishment of the desires of the Irish veterinarians as one of themselves, and I would suggest that this society adopt a candidate to put in nomination at the coming election in May. I have reason to believe that an Irish candidate will be strongly supported by some of the English Associations, as many of their members are alive to the fact that by so doing they will add to the unity of the profession, and strengthen the ties which bind together its various sections. It is likely that some unqualified persons in this country will apply to be registered under the Veterinary Surgeons Act, and who so able to investigate the justice of their claims as an Irish practitioner having local knowledge and access to sources of information which would not be available to persons less favourably circumstanced. For these and many other obvious reasons, I earnestly hope that we may succeed in having at least one Irishman a member of Council; but to secure this end prompt and united action will be necessary.

Gentlemen, I will draw to a conclusion this too discursive and hastily written address, by thanking you for the patience with which you have listened to it. The future of our profession is a bright one; the nobleness of our studies is beginning to be recognised. We are rising in the social scale, and a reciprocity of scientific interests between ourselves and other professions is being admitted. The value of our calling has been acknow-

ledged by the Legislature, and when we watch men engaged in other pursuits we need feel no discontent with our own, for we fill a place in the national economy as valuable and honourable as any. Our functions are based on humanity and utility, and surely to excel in our art is a distinction to be envied. The mists of prejudice are being dispelled, and the day is not far distant when the educated veterinarian will attain that elevated position in the professional world to which his scientific acquirements entitle him. We are all apt to forget that a goal emblazoned with *Excelsior* lies before us, but by an active membership of a society such as this, each of us will learn more and more. We will feel strengthened by mutual association, and no matter to what excellence any of us may have attained, it will cause us to recollect that a higher future lies before us.

Gentlemen, I again thank you for the kind hearing you have given me, and I assure you that I shall during my year of presidency, and indeed as long as I am connected with your society, endeavour as much as in me lies to promote and maintain its interests.

A very good discussion followed, and on the motion of Mr. Kidney, seconded by Mr. Kernohan, a cordial vote of thanks was awarded the President for his very able address; it was also unanimously approved of that the address be sent to the VETERINARY JOURNAL for insertion.

It was proposed, seconded and carried, with very high approval, "That our worthy President, Mr. T. H. Simcocks, be put forward to represent Ireland in the Council of the Royal College of Veterinary Surgeons, and that this society use its influence to have him duly elected.

The President having announced his readiness to comply with the wish of the meeting, thanked the members for the honour conferred on him in having made him the "chosen one."

Mr. Kidney presented an unique specimen of fracture of the os suffraginis of a horse.

Mr. J. B. Dunlop exhibited a very interesting specimen of a fibroid tumour which he had found on *post-mortem* examination in the right cavity of the heart of a horse. The horse had been suffering from an attack of influenza, and certain peculiar symptoms were noticed about a fortnight prior to death. On auscultating the chest Mr. Dunlop observed a dull, obscure respiratory murmur and slow action of the blood in the arteries. The horse died rather suddenly, and the autopsy revealed the right cavity of the heart filled with a light grey, tolerably firm *ante-mortem* clot, adhering in parts to the chordæ tendineæ. The ramifications of the pulmonary arteries contained emboli, which had been evidently parts of the clot that had become detached and carried away in the blood current to the lungs, thereby causing stasis in these organs. Mr. Dunlop had seen many cases of cardiac embolism before, but had always met them in the left side, and never in the right, like in this case.

He also related a case in which he found a clot in the left side of the heart of a cow, and in this animal he found abscesses in the lungs; he thought that the absorption of the constituents of the pus from the abscesses would likely account for the clot. In this case there was palpitation of the heart, which could be heard very distinctly all over the left side, as far back as the sacrum. The invariable peculiarities of the symptoms in these cases were a dull, slow, respiratory murmur, and a sudden weakness of the pulse. These symptoms enabled Mr. Dunlop to come to a conclusion of paramount importance, relative to the time it takes for the formation of such clots before they prove necessarily fatal. He believed that the exhibited specimen took about fourteen days to form.

Similar cases were cited by the President, Messrs. Mathews, Kernohan

and the Secretary. Mr. Mathews gave a very graphic and scientific description of the initial and progressive stages of *ante-mortem* clot formations in general, and of one case that occurred in his own practice in particular, the subject being a dog.

Mr. Kernohan referred to a case that came under his notice of a horse with a tumour connected with the vertebræ, and in the heart of this animal he found a large clot extending into some of the blood-vessels.

A very animated and instructive discussion took place, in which all the members joined, and many facts were brought out which seemed to have dispelled heretofore doubtful points.

It was agreed that these clots are mostly found in subjects that have suffered from such diseases as Influenza and Rheumatism, or from any other cause setting up endocarditis; that they are most commonly found in the left cavity of the heart; that they generally cause embolism of the pulmonary vessels when occurring in the right side; that they are easily distinguished from *post-mortem* clots by being of a light grey colour, semi-transparent, tolerably firm and tough in consistency; that they are not necessarily fatal for at least 14 days, unless the animal be exerted in the meantime, in which case they might cause death at any moment.

The discussion lasted until a late hour, when Mr. Mathews proposed and Mr. Kidney seconded, that it be adjourned until the next meeting. This brought a very enjoyable and profitable re-union to a close.

H. R. BRADSHAW, *Hon. Sec.*

## SCOTTISH CENTRAL VETERINARY MEDICAL ASSOCIATION.

THE second quarterly meeting of the above association was held in the Salutation Hotel, Perth, on 17th February, the President, Andrew Spreull, Esq., F.R.C.V.S., in the chair. The following members and gentlemen were present, viz.: Professor Williams, Edinburgh; Messrs. Galloway, Errol; Lowe, Perth; Constable, Inchture; Hampton, Arbroath; Ritchie, Forfar; Bissett, Brechin; Black, Lochee; Reid, Auchtermuchty; Baillie, Cupar, Fife; McGregor, Crieff; Philp, St. Andrew's; and Clark, Secretary, Coupar Angus. The following visitors were present: Messrs. Fingzies, Lochgelly; Donaldson, Auchterarder. Letters of apology were read from Mr. Knight, junior, Dunfermline; and Mr. W. D. Hunter, Dundee. The minutes of the previous meeting were read by the Secretary and confirmed.

A letter was read from George Fleming, Esq., being reply to resolution of thanks proposed by the President at previous meeting.

The Secretary read a letter from Mr. J. B. Martin, Rochester, with reference to a proposed testimonial to George Fleming, Esq., President of the Royal College of Veterinary Surgeons. After discussion it was resolved to take no action in the matter until it was seen what steps would be taken by the older associations.

After the business of the meeting was concluded, the President called upon Professor Williams, of Edinburgh, to read his paper on "Zymotic Diseases," which was treated with the well-known ability of the essayist. Discussion of the paper was deferred until next meeting. Mr. Bissett, of Brechin, proposed a hearty vote of thanks to Professor Williams, for his scientific and interesting lecture, which was seconded by Mr. Ritchie, Forfar, after which the meeting terminated. J. CLARK, *Hon. Sec.*

## THE NATIONAL VETERINARY BENEVOLENT AND MUTUAL DEFENCE SOCIETY.

### FINANCIAL STATEMENT FROM MARCH 9TH, 1881, TO MARCH 9TH, 1882.

*The National Veterinary Mutual Defence Fund.*

| CASH RECEIVED. | £ | s. | d. |
|---|---|---|---|
| Balance of Account in Bank and cash in hand, March 9th, 1881 .. | 309 | 9 | 6 |
| Subscriptions from Members from March 9th, 1881, to March 9th, 1882 .. .. .. .. .. | 144 | 2 | 6 |
| Bank Interest, June 24th, 1881 .. | 2 | 5 | 2 |
| Bank Interest, Dec. 24th, 1881 .. | 3 | 18 | 0 |
| | £459 | 15 | 2 |

| CASH PAID. | £ | s. | d. |
|---|---|---|---|
| 1881. | | | |
| June 14th, cash paid Mr. G. Nowsom on Account of trial .. .. | 5 | 0 | 0 |
| November 28th, cash paid Mr. Arthur Cammett on Account of Mr. J. Martin's case .. .. | 25 | 0 | 0 |
| 1882. | | | |
| March 9th, twelve months' Stationery, Stamps, Room, etc. .. .. | 3 | 16 | 3 |
| Cash in Bank .. .. .. .. | 425 | 18 | 11 |
| | £459 | 15 | 2 |

Amount of Subscriptions unpaid at this date is £82 10s. 6d., March 9th, 1882.

Audited and found correct,

JNO. B. WOLSTENHOLME.

Manchester, March 9th, 1882.

*The National Veterinary Benevolent Fund.*

| CASH RECEIVED. | £ | s. | d. |
|---|---|---|---|
| Invested in Mersey Dock Estate.. | 1,300 | 0 | 0 |
| Balance of Account in Bank, March 9th, 1881 .. .. .. | 98 | 14 | 2 |
| Subscriptions from Members from March 9th, 1881, to March 9th, 1882 .. .. .. .. .. | 10 | 0 | 0 |
| Bank Interest, June 24th, 1881 .. | 0 | 18 | 0 |
| Bank Interest, Dec. 24th, 1881 .. | 1 | 11 | 3 |
| Mersey Dock Coupons, due Jan. 1st, 1881 .. .. .. .. | 24 | 15 | 11 |
| Ditto, ditto, July 1st, 1881 .. | 25 | 8 | 1 |
| Ditto, ditto, January 1st, 1882 .. | 25 | 9 | 2 |
| | £1,486 | 16 | 7 |

| CASH PAID. | £ | s. | d. |
|---|---|---|---|
| 1881. | | | |
| May 24th, Cash paid to Brown's children .. .. .. .. | 10 | 0 | 0 |
| June 14th, Cash paid Mrs. M. Hart, the widow of a V.S. in the Army .. .. .. .. | 5 | 5 | 0 |
| 1882. | | | |
| February 25th, Cash paid Brown's children .. .. .. .. | 5 | 0 | 0 |
| Mersey Docks .. .. .. | 1,300 | 0 | 0 |
| Cash in Bank.. .. .. .. | 166 | 11 | 7 |
| | £1,486 | 16 | 7 |

Audited and found correct,

Manchester, March 9th, 1882. JNO. WOLSTENHOLME.

THOS. GREAVES, *Hon. Treasurer*,
Knott Mill, Manchester.

*List of Members who have subscribed to the National Veterinary Benevolent and Mutual Veterinary Defence Fund.*

| | £ | s. | d. | | £ | s. | d. | | £ | s. | d. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Thomas Secker | 0 | 10 | 6 | William Leather | 2 | 2 | 0 | W. Dacre ..... | 3 | 3 | 0 |
| Sir F. Fitzwygram | 1 | 0 | 0 | F. E. Knott ... | 1 | 11 | 6 | E. Hodgkinson | 0 | 10 | 6 |
| P. M. Walker... | 0 | 10 | 6 | H. R. Perrins... | 1 | 1 | 0 | J. Martin..... | 1 | 1 | 0 |
| Harry Olver ... | 0 | 10 | 6 | J. E. Scrivens... | 0 | 10 | 6 | J. Martin..... | 5 | 0 | 0 |
| H. M. Stanley | 1 | 1 | 0 | James Howells | 2 | 2 | 0 | J. Marshall ..... | 1 | 1 | 0 |
| G. Carless ..... | 2 | 2 | 0 | Thomas Taylor | 1 | 1 | 0 | W. G. Schofield | 0 | 10 | 6 |
| G. H. Darwell | 1 | 1 | 0 | F. Lowe ..... | 1 | 11 | 6 | D. R. Sowerby | 0 | 10 | 6 |
| F. Riddler ..... | 1 | 1 | 0 | T. G. Proctor... | 1 | 1 | 0 | W. Dobie ..... | 1 | 1 | 0 |
| Jas. Brooks..... | 0 | 10 | 6 | Thomas Briggs | 2 | 2 | 0 | F. Blakeway ... | 1 | 1 | 0 |
| T. D. Lambert | 1 | 1 | 0 | John Lawson ... | 1 | 1 | 0 | R. Reynolds ... | 1 | 1 | 0 |
| Leach ..... | 0 | 10 | 6 | Alexander Lawson | 1 | 1 | 0 | G. Cave ..... | 0 | 10 | 6 |
| Dollar ..... | 1 | 1 | 0 | W. A. Field ... | 0 | 10 | 6 | W. Whittle..... | 0 | 10 | 6 |
| A. H. Darwell | 1 | 1 | 0 | J. M. Axe ..... | 1 | 1 | 0 | F. Dunn ... ..... | 3 | 3 | 0 |
| J. Roberts ..... | 1 | 1 | 0 | H. Ferguson ... | 1 | 1 | 0 | C. W. Elam..... | 1 | 1 | 0 |
| Joseph Leather | 2 | 2 | 0 | W. Broughton | 0 | 10 | 6 | J. Wolstenholme | 1 | 1 | 0 |

| | £ | s. | d. |
|---|---|---|---|
| F. T. Stanley ... | 1 | 1 | 0 |
| J. & W. Carless | 2 | 2 | 0 |
| E. Meek ..... | 1 | 1 | 0 |
| J. J. & J. Freeman | 1 | 11 | 6 |
| Hy. Thompson. | 1 | 1 | 0 |
| John Markham. | 0 | 10 | 6 |
| T. Collins ... .. | 0 | 10 | 6 |
| A. Over ..... | 0 | 10 | 6 |
| J. C. James ..... | 0 | 10 | 6 |
| T. Peacock ..... | 1 | 1 | 0 |
| W. Cawthorne. | 0 | 10 | 6 |
| W. Withers ... | 1 | 1 | 0 |
| A. H. Santy ... | 1 | 1 | 0 |
| F. G. Samson ... | 1 | 1 | 0 |
| T. D. Broad ... | 1 | 1 | 0 |
| A. G. H. Thornley ..... ... | 1 | 1 | 0 |
| John Howard ... | 0 | 10 | 6 |
| G. Newson ..... | 0 | 10 | 6 |
| J. B. Gregory... | 0 | 10 | 6 |
| Sir F. Fitzwygram ..... | 1 | 0 | 0 |
| E. Faulkner ... | 1 | 1 | 0 |
| E. Nuttall ..... | 0 | 10 | 6 |
| R. Mackinder .. | 3 | 3 | 0 |
| James Rowe ... | 1 | 1 | 0 |
| Hy. Hogben ... | 0 | 10 | 6 |
| R. C. Edwards. | 0 | 10 | 6 |
| R. Cox ..... | 1 | 1 | 0 |
| J. Bale..... | 0 | 10 | 6 |
| P. E. Bothwell. | 1 | 1 | 0 |
| C. Morgan ..... | 1 | 1 | 0 |
| F. Danby ..... | 0 | 10 | 6 |
| G. Carless ... .. | 1 | 1 | 0 |
| C. Crowhurst ... | 0 | 10 | 6 |
| T. E. Anger ... | 1 | 1 | 0 |
| B. H. Russell ... | 0 | 10 | 6 |
| T. Gregory..... | 0 | 10 | 6 |
| W. Bower ..... | 1 | 1 | 0 |
| C. Sheather ... | 1 | 1 | 0 |
| T. G. Chesterman | 1 | 1 | 0 |
| B. Cartledge ... | 0 | 10 | 6 |
| J. J. Collins ... | 0 | 10 | 6 |
| J. E. Scrivens... | 0 | 10 | 6 |
| H. J. Cartwright | 1 | 1 | 0 |
| R. H. Cartwright | 1 | 1 | 0 |
| T. A. Dollar ... | 1 | 1 | 0 |
| D. R. Sowerby. | 0 | 10 | 6 |
| T. G. Batt ..... | 1 | 1 | 0 |
| H. T. Batt ..... | 1 | 1 | 0 |
| G. Wartnaby ... | 0 | 10 | 6 |
| G. H. & F. J. Pyatt | 1 | 1 | 0 |
| T. Walley ..... | 1 | 1 | 0 |
| G. Morgan ..... | 1 | 1 | 0 |
| T. D. Lambert. | 1 | 1 | 0 |
| J. Tatam ..... | 5 | 0 | 0 |
| J. B. Taylor ... | 1 | 1 | 0 |
| T. Cave ..... | 0 | 10 | 6 |
| H. T. Hodgkinson | 0 | 10 | 6 |
| F. H. Biddler... | 1 | 1 | 0 |
| H. Blunt..... | 1 | 1 | 0 |
| F. H. Wragg ... | 1 | 1 | 0 |
| D. E. Rattie ... | 1 | 1 | 0 |
| E. Beddard..... | 1 | 1 | 0 |
| R. C. Trigger... | 1 | 1 | 0 |
| Hy. Olver ..... | 0 | 10 | 6 |
| J. W. Axe ..... | 3 | 0 | 0 |
| Smith & Son (donation)..... | 0 | 10 | 6 |
| Thomas Secker | 0 | 10 | 6 |
| R. Roberts ..... | 1 | 1 | 0 |
| Storrar & Son... | 1 | 1 | 0 |
| A. Rushall ..... | 1 | 1 | 0 |
| J. D. Overed ... | 0 | 10 | 6 |
| Prof. Williams.. | 1 | 1 | 0 |
| Mrs. Williams from sundry Students ..... | 1 | 1 | 0 |
| J. W. Anderton | 0 | 10 | 6 |
| T. Ferguson ... | 0 | 10 | 6 |
| W. Broughton . | 0 | 10 | 6 |
| P. Deighton ... | 0 | 10 | 6 |
| Joseph Carter... | 0 | 10 | 6 |
| Peter Walker ... | 0 | 10 | 6 |
| G. A. Banham | 1 | 1 | 0 |
| T. Aubrey ..... | 0 | 10 | 6 |
| H. R. Perrins... | 1 | 1 | 0 |
| J. Malcolm ..... | 3 | 3 | 0 |
| J. M. Robert ... | 1 | 1 | 0 |
| Osborn Hill ... | 1 | 1 | 0 |
| Thomas Greaves | 1 | 1 | 0 |
| Tom Taylor ... | 1 | 1 | 0 |
| Sam Locke ..... | 2 | 2 | 0 |
| H. G. Goodall. | 1 | 1 | 0 |
| W. A. Field ... | 0 | 10 | 6 |
| J. M. Axe ..... | 1 | 1 | 0 |
| Wm. Woods ... | 0 | 10 | 6 |
| Joseph Leather | 1 | 1 | 0 |
| Wm. Leather ... | 1 | 1 | 0 |
| John Lawson ... | 1 | 1 | 0 |
| Alexander Lawson | 1 | 1 | 0 |
| G. H. Darwell. | 1 | 1 | 0 |
| Wm. Dobie ..... | 1 | 1 | 0 |
| Peter Taylor ... | 1 | 1 | 0 |
| Wm. A. Taylor | 1 | 1 | 0 |
| E. H. Leach ... | 0 | 10 | 6 |
| | £154 | 2 | 6 |

Audited and found correct,

JNO. B. WOLSTENHOLME.

Manchester, March 9th, 1882.

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# Jurisprudence.

## COURT OF QUEEN'S BENCH.

*February 28th*, 1882.

Before LORD COLERIDGE and a SPECIAL JURY.

### PRITCHARD *v.* YATES.

THIS was an action by a veterinary surgeon—official referee at the Islington Agricultural Hall—against the proprietor of the *World* for an alleged libel complained of by him as imputing to him incompetence, if not something worse, in the discharge of his duties at a horse show there. It was the duty of Mr. Pritchard, the plaintiff, when required so to do, to examine geldings which had won prizes, and to certify if they were sound or unsound; and at the Horse Show of last summer, when the horse "Old Boy," belonging to a Mr. Cookson, won the first prize, it was declared by Mr. Pritchard, the

plaintiff, on examination, to be unsound, the result of which was that it was disqualified. This excited the dissatisfaction of Mr. Cookson, the owner, who denied the alleged unsoundness; and the second horse, Mr. Jacob Stoody's "Sir Colin," was also disqualified by a similar certificate of unsoundness, which also was disputed; and it was admitted that there had been a good deal of discussion on the subject and some reflections on Mr. Pritchard. The libel complained of appeared in the *World* published on the 22nd of June, 1881, and was as follows:—

"It appears that Mr. J. B. Cookson is not the only exhibitor at Islington who has to complain of the want of knowledge, or carelessness, of Mr. Pritchard. The second to Mr. Cookson's horse was Mr. Jacob Stoody's "Sir Colin," also disqualified for unsoundness, but whose soundness is vouched for by quite an array of veterinary talent. The worst of the matter is that there is, according to the laws of the Islington Horse Show, no appeal against these mistakes, and it appears that Messrs. Cookson and Stoody must grin and bear the hardship inflicted upon them. The former gentleman talks of bringing the matter formally before the Governing Body of the Veterinary College, for which no one could blame him, as the present state of things is too scandalous to be allowed to prevail without some attempt at remedy. That many unsound horses receive prizes at Islington has always been notorious, but that horses in whom there is nothing wrong should have unsoundness tacked on to them without rhyme or reason is enough to prevent exhibitors from patronizing the show until some radical change is effected or some appeal from an unjust decision allowed."

For this the present action was brought, in which the defendant pleaded "Not Guilty" and also a justification.

Mr. T. Salter, Q.C., Mr. Finlay, Q.C., and Mr. S. H. Day were for the plaintiff; Mr. C. Russell, Q.C., and Mr. Paget were for the defendant.

It appeared that at the Horse Show there was a rule that a horse should not receive a prize until it had been passed as sound by the official referee, whose decision was to be final. The plaintiff had to perform this function of inspection at the last Horse Show, and he gave a certificate that Mr. Cookson's horse, "Old Boy," the first horse, was unsound; in his evidence he stated that the horse had a speck on the corner of his near eye, and there were also symptoms of cataract in the other eye, and both together he thought indicated unsoundness. Mr. Cookson, he said, had disputed it, and told him that the speck was caused by an accident in the field. He declared that he had carefully examined the horse, and was a good deal cross-examined as to the grounds of his opinion, as to which he was reminded that even judges were liable to have their judgments disputed. He admitted this, but said he considered the language used in the alleged libel involved an attack upon his reputation and professional character. He admitted, however, that "it was notorious that unsound horses did sometimes gain prizes." He declared it was "obvious" that this horse had cataract, and though he admitted he might sometimes make mistakes, he said he did not believe he ever was mistaken when he had said he saw cataract. He stated that the other horse, "Sir Colin," was unsound because he whistled and had a defect in the near hip. He admitted that he had certified a horse to be sound which might have afterwards been declared disqualified at Peterborough. He admitted that both the horses in the present case, "Old Boy" and "Sir Colin" were known as "notorious prize-takers"—*i.e.*, as taking prizes at horse-shows. There had been, he said, a great deal of discussion in the papers upon these two cases; many of the papers had, he said, animadverted upon his conduct, and, in short, had abused him and questioned his judgment, but this libel, he said, was "the last ounce that broke the camel's back."

It was disputed by the counsel for the defendant whether the general statement that unsound horses were passed and sound horses disqualified applied to the plaintiff; and

Lord COLERIDGE intimated that he did not think that it did.

The plaintiff said he thought it did, as he had been referee for ten years, and his counsel urged that if the statemeut were true, his client must have passed unsound horses and disqualified horses which were sound, and that this implied that he was either careless or ignorant; but the defendant's counsel disputed this, and said it was mere argument and inference; and

Lord COLERIDGE repeated that he did not think this part of the libel purported to apply to the plaintiff.

Messrs. Wragg, Oatway, Talbott, and Professor Axe were called to confirm the plaintiff's evidence as to the unsoundness of "Old Boy."

For the defence, Mr. Cookson, the owner of "Old Boy," was called, and stated that he bought the horse six or seven years ago, and gave 300 guineas for it, and up to the last three or four weeks had hunted on him. He exhibited the horse at Carlisle in 1880 and at other places, and it had always been "placed," and with two exceptions got the first prize. At the last exhibition at the Agricultural Hall the horse got the first prize, though he was declared disqualified. Then, at Peterborough, he took the second prize, and at the Alexandra he got a prize, and then he went to Derby and got the first prize, having the certificate of Messrs. Mavor, Cartwright, and Williams. He got four prizes with their certificate of soundness after he had been condemned by the plaintiff. He was present when the plaintiff examined the horse, and told him the speck on the near eye was caused by a prick of a thorn in riding in the hunting-field, and that was the fact. The plaintiff was not two minutes examining him. He was surprised to find his horse declared disqualified as unsound. He went and asked the plaintiff, Mr. Pritchard, what was the unsoundness, and the plaintiff said it was a "palpable cataract," and witness said he did not believe it, and should have the horse examined, and he had him examined by the three veterinary surgeons who had already certified him as sound—Mr. Mavor and the other two mentioned. They said there was no cataract.

Mr. MAVOR, the well-known veterinary surgeon, was called in confirmation of this evidence, and stated that he had examined "Old Boy" at the Agricultural Hall, very carefully and with special reference to his eyes, and he failed to detect signs of disease in either eye. He was satisfied, he said, that there was no cataract.

Asked in cross-examination how he could account for the opposite opinions given, he said he could not account for them.

LORD COLERIDGE.—Many years ago an eminent man of science was asked a similar question, and replied, "We do not aspire in science to the certainties of the law." (Much laughter.)

Mr. CARTWRIGHT, another eminent veterinary surgeon, gave similar testimony. There was, he said, no sign of a cataract. He was half an hour examining the horse.

Mr. WILLIAMS, the other of the three veterinary surgeons mentioned, was also called, and gave similar evidence. There was nothing, he said, in the eye which would be mistaken for cataract.

Mr. STOODY, the owner of the other horse, "Sir Colin," was then called and gave evidence about him. He bought the horse, he said, at Horncastle, in 1879 (when the animal was examined by a veterinary surgeon), and he was exhibited at Manchester and gained a prize. He was sent to another horse show with a certificate, and he sold the horse in 1881 to Sir Charles Mordaunt (on a certificate of soundness) as a hunter, and from him he repurchased him at the close of the hunting season, and then he was sent to Islington, where he

gained a prize, but was declared disqualified. After that show the horse was examined by three veterinary surgeons, who declared him sound. The horse afterwards was exhibited at four other shows—Derby, Hinckley, Burton, and Rugby—and gained prizes at all of them. There was no defect in the hip-joint, the horse was not a whistler, and was not in any way unsound.

Mr. RUSSELL, after further evidence to the same effect, proposed to rely on the defence that the article was excusable as public discussion of a matter of public interest, as well as upon the plea of justification on the ground of truth.

Mr. T. SALTER opposed this, and urged that the defence could not be set up, as it had not been pleaded.

LORD COLERIDGE observed that every witness had been called who could throw any light on the matter, and he did not see how it could possibly prejudice the plaintiff.

Mr. RUSSELL then proceeded to address the jury upon the evidence in support of the defence thus set up, urging that these horses had won prizes all over the country, and it was a matter of great public interest that they should all of a sudden have been declared disqualified as unsound, and that, too, in spite of the positive opinion of some of the first veterinary surgeons of the day, that they were perfectly sound.

Mr. T. SALTER, in reply on the part of the plaintiff, urged that the question was not whether one set of veterinary surgeons or the other was right (a question which he admitted might be a fair subject of discussion), but whether his client, the plaintiff, was ignorant or careless, or, in short, whether he was an unjust judge. His professional character was attacked, his conduct as an official judge or referee was assailed, and the libel went far beyond fair discussion, and was not true in fact.

LORD COLERIDGE, in summing up the case to the jury, said the articles were complained of as malicious and libellous. No doubt what tended to discredit a man was libellous, and the jury would think that these articles tended to discredit the plaintiff. But the defendant set up two defences, first, that what he had stated was in substance true, and next that it was matter of fair comment and discussion on a subject of public interest. If either of these defences were made out the defendant was entitled to a verdict. As to either of them, the press had no peculiar privilege, and any one could publish what was true of another, or could treat fairly of any subject of public interest. And writers on the characters of others were to be held within the rules and limits of the law, or the press would become a pest. Public writers, therefore, must take care, and must not make the occasion the opportunity of private malice. If the occasion was one of peculiar interest it was protected, provided it was not abused by malice. Therefore the jury were to see whether the writer in this case had abused the occasion in that way. If a writer stated of another that which was not true, and which he stated recklessly and without inquiry or care, then that was malice in the view of the law. And if the jury in this case thought that the writer of this article had written in that way recklessly or carelessly, then the proprietor, Mr. Yates, would be liable for it. It was not a question here whether Mr. Pritchard was or was not right in the decision he had given, as to which there had been such a diversity of opinion, which might have been fairly enough subject of fair discussion; but the question was whether Mr. Pritchard had come to his decision ignorantly, carelessly, or unjustly.

The jury, after a brief consideration, found for the plaintiff—damages £100.

# Parliamentary Intelligence.

*House of Commons*, March 16th.

## THE ARMY VETERINARY DEPARTMENT.

MAJOR O'BEIRNE asked the Secretary of State for War whether any decision had yet been arrived at regarding the readjustment of relative rank and retiring pay for the officers of the Army Veterinary Department, with a view of placing those officers on an equality in this respect with the quartermasters and riding masters, and other commissioned officers.

Mr. CHILDERS: In reply, I have to say that I have looked into this question, as I promised last year, and before the end of the Session I may be able to give some information on the subject, but the difficulties are much greater than I anticipated when I first took up the question.

The Secretary to the Government of India has conveyed to First Class Veterinary Surgeon R. Poyser the thanks and acknowledgments of the Lieutenant-Governor and Chief Commissioner of the North-west Provinces and Oudh, for the thorough and satisfactory manner in which he performed his duties, and for his valuable services in stamping out Glanders and Farcy among the carriage and mail-cart horses along the Bareilly and Naini Tal road in October, November, and December last. "Here," says the *Army and Navy Gazette*, "is a striking contrast between the frank and prompt recognition on the part of the Civil Government, and the reticence and indifference of the military authorities with respect to the services of the Army Veterinary Department, whether in time of war or peace, and whether they extend beyond the pale of its legitimate duties or not."

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# Army Veterinary Department.

*Gazette*, February 21st.

THE undermentioned Veterinary Surgeons on probation to be Veterinary Surgeons:—J. R. Beech, R. W. Burke.

*Gazette*, February 24th.

Veterinary Surgeon A. W. Mason resigns his commission.

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# Obituary.

THE death is reported of O. S. Blackett, M.R.C.V.S., of Newbury, Berks, who graduated in 1871. A correspondent and friend of the deceased writes:—"In Mr. Blackett the profession has lost a worthy member. Being young, he was not well-known, but those who came in contact with him could not fail to recognise his exceptional merits. His literary and scientific attainments were of a high order. He belonged to the few to whom the accumulation of wealth is not of much importance. His books and the few friends he gathered around him, with whom he could so ably discuss subjects that occupied his attention, constituted his chief pleasures. In many respects he was not qualified to fight the rough battle of life, and had he lived probably he would never have been known beyond a limited circle. Liberality, charity, and honour were conspicuous in all he did."

The death is announced of Stephen Knott, M.R.C.V.S., Army Veterinary Department, who died in India of Hepatitis. He graduated in 1868. He was greatly esteemed by a wide circle of friends in and out of the Army, and his untimely death is much deplored.

We regret to have to record the death, on February 26th, of Mr. Thomas (Tom) Roberts, M.R.C.V.S., of Oswestry, who graduated in 1862. Mr. Roberts was forty-four years of age, and held the offices of Veterinary Inspector of the Smithfield and Borough of Oswestry, as well as for the Oswestry Division of the County of Salop. He at one time acted as Veterinary Surgeon to the Shropshire Yeomanry Cavalry.

On February 4th, died of Phthisis, at the early age of thirty-five years Professor David von Niederhausern, Director of the Berne Veterinary School, and Honorary Associate of the R.C.V.S. Our deceased colleague was one of the most distinguished veterinarians in Switzerland, and was co-editor with Strebel, of Freiburg, of the "Schweizerische Archiv für Theirheilkunde."

## Notes and News.

SPONTANEOUS COW-POX.—Dr. Dubreuil, of Bordeaux, has published an account of a case of Spontaneous Cow-pox observed by him in the Department of the Gironde. A large number of people have been vaccinated with the matter from the pustules, and a calf also inoculated has been sent to the Paris Academy of Medicine, where it has served for the vaccination of a number of children. Eighteen years ago Depaul brought from Beaugency a calf inoculated under the same conditions, and which served to regenerate the vaccine annually distributed by the Academy. Experiments are now being made with the calf sent from Bordeaux.

LEECHES.—M. Megnin lately presented to the Société de Biologie a collection of fifteen leeches, of a species foreign to those found in France. They were adhering to the mouths of horses just returned from the Tunis campaign, and which had been camping near Bizerte. All the brooks of Northern Africa contain that kind of leech called *Hæmopis sanguisuga*, whose jaws are too weak to bite the skin; so that they enter the animals' mouths when they come to drink, and cling to the mucous membrane. They may live in this situation for weeks, causing hæmorrhage, and even asphyxia if they enter the larynx. But they die almost immediately when introduced into the stomach or rectum.

## Correspondence, etc.

### THE PROPOSED ARMY VETERINARY DEPARTMENT FOR INDIA.

SIR,—I would like, with your permission, to supplement Mr. Meyrick's welcome remarks on the above subject, which appear in this month's VETERINARY JOURNAL, and in doing so would earnestly direct attention to its urgent importance, not only to army veterinary surgeons, but to the entire body of the profession; for whatever tends to injure the former must also prejudicially influence the latter, and *vice versâ*.

The advantages held out to the present and future veterinary officers in the new scheme for India are very trifling, being only an increase of pay to

the extent of a few rupees; whereas, on the contrary, the conditions of service are, on the whole, far inferior and objectionable to those now existing. The bait thrown out to induce young veterinary officers to volunteer for the Indian Department, is the abolition of the ten years' system at present in force. These young officers may be led to believe that they will probably all be cast adrift on the expiration of their ten years' service. This is undoubtedly a great mistake. In the Medical Department, when the ten years' system existed, only six out of some forty members were allowed to be retained for pension; but in the Veterinary Department, four out of the seven or eight admitted annually can be retained. This is an important difference; as on the expiration of ten years, of the eight who originally joined, it is probable that, through resignations and other causes always in operation, five or six only will be left. Of these, four at least can be retained, and as regards the remaining one or two, there is nothing to prevent them pocketing £800 and commencing another ten years, with the prospect of being kept on at the end of that time for pension.

A good man with ten years' experience, is better for army service than a young aspirant just from college; while, if he is not a capable man at the end of ten years, then the service is better without him. But no fairly competent officer need ever fear being dismissed.

There is in, the proposed Indian scheme, an improved rate of pension held out as a bribe for the senior members of the Veterinary Department to volunteer—and this bribe may so operate to a limited extent; but the juniors should beware of the decoy ducks, and consider how it would affect them personally. How many young men would live to complete twenty, twenty-five, or thirty years' service in India, so as to benefit from the proposed pension for such periods of service? The percentage, judging from past experience, would be extremely small. Those who are in the best position to know, are confident that the work which will be imposed on veterinary officers by the new scheme will send them home invalids, worn out, at a much greater rate than heretofore—great as this has been. Let those who contemplate volunteering only think of the invaliding and mortality of the last five years, and then remember that, in the proposed scheme, under ten years' service, no pension is given, nor yet any gratuity. There will be no prospect of a tour of service in England for the recovery of lost health, and which many are now benefiting by, but who, under the operation of the new scheme, would be cast out upon the world unrewarded and uncared for.

Whether the terms of Indian service are made to satisfy the Department and the profession, rests entirely with the veterinary surgeons now in the army. If they one and all refuse to volunteer, the scheme will fall to the ground dead. Let no young veterinary surgeon think that by volunteering he would escape being placed on half-pay if a reduction is carried out at once; for, in accordance with the regulations, the juniors only would be affected. But there need be no fear on this head, as, if reduction takes place, it will be only by gradual absorption.

One thing is certain, and it is that the Home Government has notified to the Indian Government that a union of the two branches—British and Indian—will no longer be permitted unless the rates of pay and conditions of service in India are much improved. They are not improved by the proposed scheme—nor will they be improved if veterinary surgeons accept the terms offered by the Indian Government.

What veterinary surgeons should receive is set forth in the annexed schedule; this shows the percentage of increase over home rates allowed to all departments and branches of the service in India, but which is refused to the Veterinary Department.

*Table showing the British and Indian Emoluments respectively now allowed to Officers of the Veterinary Department, as compared with those allowed to Officers in other Branches of the Army.*

| Designation of Officer. | British Emoluments (Pay and Allowances). — Per Year. | Indian Emoluments. — Per Month. | Increase per Cent. of Indian over British Emoluments, calculated at 2s. the Rupee. | | Proportion of 62½ per Cent. which Veterinary Officers should receive in India over Home Rates. — Per Month. | | |
|---|---|---|---|---|---|---|---|
| | £ | Rupees. | Per Cent | Avrage. Interest Per Cent. | Rpes. | Annas | Pice. |
| 1st Class Veterinary Surgeon (relative rank of Captain):— | | | | | | | |
| On appointment ..... | 476 | 578 | 45 | | 634 | 2 | 10 |
| After 5 years' service as such | 512 | 602 | 41 | | 682 | 2 | 10 |
| „ 10 „ „ „ | 548 | 627 | 37 | | 730 | 2 | 10 |
| „ 15 „ „ „ | 584 | 651 | 33 | | 778 | 2 | 10 |
| „ 30 years' total service .. | 620 | 675 | 30 | | 826 | 2 | 10 |
| Veterinary Surgeon under the New Warrant (relative rank of Lieutenant) ..... | 417 | 377 | 8 | 29 | | | |
| Veterinary Surgeon under the Old Warrant (relative rank of Lieutenant):— | | | | | | | |
| Under 5 years' service .... | 350 | 377 | 29 | | 466 | 2 | 10 |
| After 5 „ „ | 386 | 401 | 24 | | 514 | 2 | 10 |
| „ 10 „ „ | 431 | 432 | 20 | | 574 | 2 | 10 |
| Captain of Cavalry..... | 407 | 563* | 65 | 62½ | | | |
| Lieutenant of Cavalry of 3 years' service, or Riding Master on appointment ..... | 273 | 365* | 60 | | | | |
| Paymaster attached to a Cavalry Regiment (honorary rank of Captain):— | | | | | | | |
| On entering the Department | 395 | 566* | 71 | 62 | | | |
| After 5 years' service..... | 441 | 596* | 62 | | | | |
| „ 10 „ „ | 486 | 627* | 54 | | | | |

* Including horse allowance.

In addition, it must be observed that, whereas cavalry officers have only 2·5ths of Indian to Home service, and paymasters attached to cavalry but 1·5th, the unfortunate veterinary officer has to serve one-half his time in India.

Surely these facts and figures should convince the profession that the Army Veterinary Department is most inconsiderately and unfairly treated, and that the time has come when the action so successfully adopted by the medical profession should be adopted by ours—stop the supply of candidates until fair terms are offered; nothing else will ever secure justice. The proposed Indian scheme is a trap devised to catch the unwary, but woe betide those who fall into it.

By declining to accept the proffered terms, the veterinary surgeons cannot be worse off in any respect than they are at present, and they will undoubtedly compel the Indian Government to make a vastly improved concession to their just demands. The Medical Department has demonstrated very clearly how to act under the circumstances in which the Army Veterinary

Department is now placed. The success of the former has been absolutely complete. The matter rests entirely with the profession; and if any of its members, in order to seek favour or their own personal aggrandisement, would sacrifice the interests of all, from purely selfish and personal motives, they deserve to be held up to universal condemnation by the entire body.—Yours, etc.

ARGUS.

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SIR,—Perusal of Mr. Meyrick's communication in the last issue of the VETERINARY JOURNAL induces one to offer a few remarks for the consideration of your readers, but more especially those serving in the army. Having passed a large portion of my service in India, I can fully endorse every statement in Mr. Meyrick's letter, although, perhaps, I had not as good opportunities as that officer for obtaining information. Still, I have experience of many different military stations, and consequently may, perhaps, be excused for saying that I write with a certain measure of authority for my statements. I was in India at a time when there were seldom, if ever, less than sixty veterinary surgeons for duty, and during the whole time (six years) I was unable to obtain leave, under ordinary circumstances; and it was only when my health gave way, and I was obliged to apply for a medical board, that I obtained leave to the Hills. Now mine is only one case among many, and if such a state of affairs could exist when there were so many veterinary officers for duty, it requires but little foresight to calculate what will happen if the new Indian scheme becomes *un fait accompli*. Veterinary surgeons are but flesh and blood. Yet the Indian authorities seem to be possessed of an idea that they are made of cast iron, or some equally unimpressionable material; otherwise the cruel and absurd scheme at present in process of incubation appears unaccountable to most old Indians. Personally, I would not serve, except under sheer necessity, under the projected arrangement, if the pay were doubled; although when there I liked the country fairly well.

As Mr. Meyrick states, everything has become dearer. House rent, servants' wages, cost of living, horses' forage, and the hundred other little necessaries of life in a hot climate; while work has increased, and correspondence with it, as any one who has had to deal with any of the many outbreaks of epizoötics can testify.

How will the new pseudo-veterinary surgeons—the "salootries"—get on, I wonder, when left to work their own wicked will? Every unbiased Indian cavalry officer will say that they have little or no knowledge of disease, no promptitude in dealing with it, and that, as a rule, their ideas of treatment depend, and always will depend, give them what education you may, upon what they think will please the "colonel sahib" or other commanding officer for the time being. Their notions of sanitation are of the east eastern, and lamentable in consequence. Mr. Meyrick says that natives of India have plenty of ability, and I do not deny it; but they will always, unless placed in a much higher position than a "salootrie" can ever obtain, be time-serving, and inclined to do what they think will please, rather than what is right. I presume that the veterinary surgeons will be more or less administrative officers, doing executive duty only in emergencies. If so, how is it proposed to deal with two or more serious simultaneous outbreaks of disease, occurring in stations hundreds of miles apart, but in the same circle? Is the unfortunate officer to run about from one to the other, perhaps in the middle of a hot season, and so stand a good chance of being found, some fine day, dead in a railway carriage? Or are the four supernumeraries to be available in such cases, in addition to filling vacancies caused by sickness? Really, to any one with a knowledge of India,

the whole thing is supremely ridiculous, and will, I hope, soon appear so to all concerned. It is impossible to have an efficient veterinary organization in that country, unless everything is done upon a most liberal scale. The last Afghan wars proved this most conclusively, and instead of reducing the number of veterinary surgeons one-third, it ought to be doubled, in order that the duty might be efficiently performed without overtaxing either the mental or physical capacities of the officers concerned; and also that they might be able, equally well with officers of other departments, to obtain a fair amount of leave and relaxation from work. Combatant officers, commissariat officers, paymasters and quartermasters, can, without much difficulty, find others to perform their duties if they wish to obtain leave, and medical officers seldom are without a brother *medico* to help them in any difficulty. But with the veterinary surgeon it is different, singularity being the rule rather than the exception; and as no one but a veterinary surgeon can efficiently, or moderately so, perform veterinary duties, his chance of obtaining leave is always a slight one; and it is only when in a large station, where he has a brother officer to help him, that he can count upon getting away from the enervating routine of continuous work in the plains of India. Under the new scheme—as already pointed out—this chance will be still smaller, and leave will be almost, if not quite, an impossibility.

I am, sir, yours very truly,

"UBIQUE."

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## SUPPOSED CASE OF POISONING.

DEAR SIR,—The following interesting case came under my notice in October last. On the 7th of that month, I was called in (by request of Mr. Walsh, V.S., Ballina), to see a chestnut stallion, the property of the Earl of Lucan. After examining the horse carefully, we agreed that he was suffering from rupture of the stomach. The pulse was about fifty-two, full and *firstly* regular; temperature not much elevated; the skin wet with perspiration; breathing hurried; and a continual flow of green fluid through both nostrils. I may say that the horse never worked, and was highly fed. He was heard making a noise in the stable, as if kicking, about three o'clock in the morning. At six o'clock the steward again saw him, but neither then nor any time until his death had he rolled about as if he had been suffering from ordinary Colic. Sometime between six and twelve o'clock the steward gave him a colic drink, made up in a chemist's in this town, from a prescription left by Lord Lucan for this purpose. After I saw him, there was no medicine given, as we thought it no use. Having made up our minds that it was ruptured stomach, I believe the flow of the food through the nostrils commenced about three or four o'clock; I did not see him till after five; the horse died at ten o'clock that night. The next morning I made a *post-mortem* examination, in presence of Mr. Walsh, V.S., and Lord Lucan's agent and steward, and found a very serious rupture of the stomach. Lord Lucan then, I believe, telegraphed to have the stomach and contents (which were at this time buried), sent on to Dublin for analysis, the result being that the chemist (Dr. Cameron) declared the presence of a poison (veratria). Well, the matter was allowed to rest (at least for all Mr. Walsh or I knew, except what I had heard privately) till a week ago, when the county was placarded with proclamations offering a reward of £100 for such information as would lead to the conviction of the person or persons who maliciously poisoned his lordship's stallion, and £50 for such private information as would lead to detection. Still the two veterinary surgeons who attended the case were never told that the poison had been found. Mr.

Walsh being in total ignorance of the fact wrote the letter which I enclose.* Now, sir, there are two important questions to be answered or decided, and there are strong arguments in favour of each, viz. :

1. Was the horse poisoned maliciously? 2. Was he poisoned at all? In answer to the second question, any one would be very slow in putting the chemist's certificate aside, saying there had been veratria found; but one naturally says, if the poison had been there, why did it not act in the way veratria always does? When I tell you that the beast's action was not interfered with to any degree, that there was no diarrhœa, and the *post-mortem* examination showed that there was no such inflammation of the mucous coat of the stomach as one would expect to find. I may also state, that it was the external coat which gave way for inches, whereas the internal coat was only perforated very slightly, such as a bullet would cause by penetrating a piece of paper.

With regard to the first question, was the horse poisoned maliciously? I would indeed be very slow to say it was or it was not; but if done maliciously, then how? 1. When we know that there was a special lock for the particular stable the horse occupied. 2. Supposing the person to have got into the stable, I assert that the poison could not have been given in water, being insoluble; that the horse could not have taken it in his food, being so bitter and irritating to the nostrils, the horse having got dry oats the night previous to his becoming ill, and I think many will agree with me that no one or two ordinary men would have the courage to give it to a powerful (though said to be quiet) stallion. Now, sir, I say from the above facts that the only way I could conceive that the animal got the poison (if he got it), was by being given in the drench which Lord Lucan's steward gave previous to Mr. Walsh and myself being called in, as every one knows that mistakes do and will occur.

As this is a very important medical jurisprudence case, I should feel greatly indebted to you if you will be the means of solving the mystery by publishing this long letter. I remain, sir, yours truly,

Castlebar, Co. Mayo, Ireland. JAMES GEO. O'DONEL, M.R.C.V.S.

## UNPAID ADVERTISEMENTS.

SIR,—The above title suggests itself as applicable to certain remedies from time to time recommended in veterinary periodicals, under the guise of new medicines or improvements in that department of pharmacy belonging more particularly to our profession.

In a recent number of a contemporary, a druggist, taking up the subject, apparently, of one class of therapeutic agents, makes a few common-place remarks to serve as a mantle to veil the real object of his letter, namely, to

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* POISONING LORD LUCAN'S HORSE.

*To the Editor of the Freeman.*

Ballina, 26th Feb.

SIR,—My attention has just been drawn to-day to a paragraph which appeared in the *Freeman's Journal* a few days ago, stating that a reward was offered in the *Dublin Gazette* for such information as may lead to the person or persons who poisoned his lordship's stallion. I was called in professionally to treat said horse for Colic early last October, and immediately on inspection I gave my opinion that the horse was dying from rupture of the stomach. In the meantime, Mr. James O'Donel, V.S., was called in at my request, and he entirely agreed with my diagnosis. I may state that the horse died shortly after I first saw him. Mr. O'Donel made a *post-mortem* examination in the presence of the agent, the steward, and myself; and the result was that he revealed the worst case of ruptured stomach I ever saw.

P. WALSH, M.R.C.V.S

recommend a certain nostrum of his own, and boldly finishes up by saying it can be obtained of Messrs. —— and Co. What is this but an advertisement on a privileged page?

The author takes us so far into his confidence as to say he has recently introduced one of the ingredients to the veterinary profession, whereas to my positive knowledge it has been used for the past twelve years.

In the case referred to, the writer *may* have the interests of our profession at heart, and a laudable desire to advance an hitherto neglected branch of pharmacy, but this would be better done by giving us a recipe for his remedy, or explaining his *modus operandi* in the preparation of it, instead of simply informing us that his quasi-discovery has received its baptismal rites, *and* can be obtained of Messrs So-and-So.

The publication of the formulæ by persons offering remedies to us, and advising us as to their use, would clear them from the imputation of being interested in the sale of nostrums.

Yours truly,

HAROLD LEENEY, M.R.C.V.S.

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## A VETERINARY LIBEL.

SIR,—In the early part of November last, I was called in to attend a horse in New Bolingbroke, the property of Mr. James Lee, which was seriously ill of constipation.

I am a duly qualified member of the Royal College of Veterinary Surgeons, and my father, who accompanied me, is a farrier of great experience, and qualified to practise under 44 and 45 Victoria, chapter 62, section 16. He, however, in this instance went with me merely as an attendant might do, the case being entirely under my charge. On seeing the animal I at once pronounced it beyond human remedy. I, however, consented to the administration of a pint of oil at the owner's wish, which though powerless to save the horse, might afford temporary relief, and could do no harm.

After I had attended to the case I read in the issue of the *Guardian* of the 12th November, 1881, the following letter:—

"QUACKERY.

"*To the Editor of 'The Guardian.'*

"SIR,—According to the ordinary laws of nature every biped is subject at some time or other to sickness, but should he escape such a fate, one thing at least is certain—he has to die. The quadruped has no immunity from these conditions, and when its race is run, it too has to yield to its common fate. *Mors omnibus communis.* The complex animal machine will often even, when the greatest care is used, get out of order through some dietetic imprudence or weather change, over-fatigue, etc. The healer of the sick, whether physician or veterinarian, can by certain known remedies allay the irritations arising from merely functional derangements, but when the sable king in his ladily aspect and with fatal fangs approaches, skill is at once absorbed, and the 'medicine man' stands before the 'grisly monster,' a spectacle of utter impotency. The qualified practitioner feels, and as soon as those signs appear, marking the too sure hold of death, confesses to the incompetency of his healing art. *Not so the charlatan.* He knows nothing of the case submitted to him, nor does he care to know, because his ignorance might blaze out, and he be checked in the marvellous kill or cure, which he has set himself to do. His sole object is to deceive and make his dupe imagine that he holds the threads of life and death. Such miserable pretensions to the gullible are more distinguishing and trustworthy than the *bonâ fide* diplomas of a Royal College.

"A painful case illustrative of the above occurred at New Bolingbroke the

other day, when a farmer having a valuable horse taken ill called to his aid our local veterinary surgeon. Mr. Watkins, after examination, gave it as his opinion that the case would terminate unfavourably. The neighbourhood is already well aware of the efficient skill displayed by our neighbour in the treatment of all cases entrusted to him, and an opinion so positively expressed should have had due weight with our farmer in question. He, however, called in the services of a quack salver from our modern acropolis, whose panacea of linseed oil was heroically administered to the suffering equine. *Two quarts* of this article were poured down the œsophagus of the unfortunate patient, and presently, while yet in the hands of the bold practitioner, the good old servant, without uttering a protest, *expired*.

"We stare in wonderment at the credulity of human nature, and should be inclined to laugh at this silly farmer were it not for the painful fact, that during the momentary enthronement of quackery the poor dupe lost a valuable horse.

"When, I ask, will common-sense assert its sway, and cause the mental vision to be as clear as the actual, requiring no more aid to see through the humbuggery of the impudent empiric than an ordinary window? Education must have more hold of the body politic, I fear, before we can hope to see such impostors stamped out.

"Nothing has yet been said or written that solves the mystery of quackery; and if, Mr. Editor, you will be good enough to insert these observations of mine, as an endeavour to forge one link in the chain which is to bind the monster and thrust it from our midst, you will be helping to rid our country of one of its most scandalous pests.—I am, your obedient servant,

"HOMO.

"New Bolingbroke, 8th Nov., 1881."

Feeling that such a communication was a gross libel and untrue, I placed the matter in the hands of my solicitor, Mr. Dyer, of Boston, to whom the name of the writer was communicated. It proved to be Dr. Paterson, of Mareham-le-Fen. Being astonished that one who should be a gentleman of education, whom I did not know and had never harmed, should lend himself to such a production, I instructed my solicitor to write to him, and he received the following reply :—

"Mareham-le-Fen, 16th Nov., 1881.

"Dear Sir,—On receipt of a communication from the Editor of the *Boston Guardian* this morning, I have without delay seen the party who asked me to write the letter to which, in the interests of Mr. Leach, you have taken objection. My friend positively declares that Mr. Leach, senr., the person who was called to attend the case at New Bolingbroke, is not a legally-qualified medical practitioner. Of Mr. Leach I know nothing personally, and in fact, until this morning, I did not even know the name of Mr. Leach, or that there was any such veterinary practitioner, qualified or unqualified, in Boston. All I can say is, if my friend by supplying me with erroneous information (which I cannot think he has wilfully done) has caused me to be guilty of publicly offering a gratuitous insult to a man whom I do not know, and who has never in my knowledge done me any harm, I am sincerely sorry for it, and shall, if he holds a *bonâ fide* qualification, be most willing to tender to him an apology and to retract publicly (if he desires it) every word which he thinks reflects on his professional reputation in the letter headed 'Quackery,' appearing in the *Guardian* of last week.—I am, sir, yours truly,

"— Dyer, Esq."

"ROSS-PATERSON.

My solicitor at once replied to Dr. Paterson demanding the name of the person for whom he wrote the letter, when Dr. Paterson replied by return of

post that the individual was "Frederick Watkins," a veterinary surgeon practising at Mareham-le-Fen.

My solicitor then immediately wrote to Mr. Watkins demanding an apology, but he has not had the manliness even to send a reply.

Now, sir, I have three courses open to me—a criminal information against both persons for conspiracy, an action against Mr. Watkins and Dr. Paterson for libel, or to publish the correspondence. I have chosen the latter course, leaving the whole matter to speak for itself.

I appeal to the public whether it is not a gross thing for a brother veterinary surgeon to procure another person to write an untrue and libellous letter on one of his own profession, and to insert a paragraph, such as that in the one headed "Quackery," highly eulogistic of his own skill? Is not this a sneaking way of advertising himself and endeavouring to damage a brother practitioner?

I am as qualified to exercise my profession as he is. He may have intended to libel my father, but in doing so he has libelled me. My father is also qualified by virtue of the Act of Parliament I have before quoted, and far more experienced than Mr. Watkins, in spite of his diploma.—I am, sir, yours, etc.,

LIONEL L. LEACH, M.R.C.V.S.

Boston.

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## RABIES AND HYDROPHOBIA.

DEAR SIR,—It appears from a letter in the *Exchange and Mart* (issue 27th ult.) by Mr. H. Leeney, M.R.C.V.S., Brighton, that the terrible disease, Rabies, has during the past five months been raging at that famous southern watering-place, he having had the good fortune during the "past" *five* months to witness more cases—viz., thirty-five—than most practitioners see in a period of as many *years*, or even (excepting kennel outbreaks) during a long life of practice. Surely Mr. Leeney will not withhold from his professional brethren the valuable history of this large number of cases, which he is evidently willing to give to the lay press! Deep scrutiny of the semiology of each case would be of great value, both to the profession and the *public*.

Mr. Leeney remarks in his letter that "some of the animals jumping upon me when I have gone to see them, and others uncertain as to whether they would kiss or bite me." If the animals were destroyed in this condition, is there not some *question* as to the possibility of an error in diagnosis? Otherwise, the public at Brighton is at a terrible risk if thirty-five mad dogs have been at large during the short period mentioned. By the health reports in the medical journals, I gather that the town in question has, during the past five weeks of the present year, been *quite free* from Hydrophobia; therefore it would be very interesting to know if any persons were bitten by the rabid animals.

Yours faithfully,

Westfield House, Dartford. WM. ALSTON EDGAR.

*March*, 1882.

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## THE VETERINARY MEDICAL ASSOCIATION.

DEAR SIR,—"*Nil de mortuis*" was not written of institutions, but of individuals. Therefore I crave your indulgence in venturing to stir up the embers—nay, shall I say the ashes?—of the Veterinary Medical Association; for that long-standing, undeniably useful, and I think as one recently a student I may safely affirm, much appreciated Society, appears to have become defunct, since the resignation of two of the late teachers of the Royal Veterinary College.

Most of your numerous readers will be aware to whom allusion is here made—the energetic and popular Prof. Pritchard, so long President of the Association, and the indefatigable scientific worker and students' friend, Mr. Steel, who, I may safely say, during his tenure of office discharged the duties devolving upon him with a zeal and assiduity to which all will bear testimony who know him.

But if I am rightly informed, Prof. Pritchard is still President of the Association, and although Mr. Steel resigned the Secretaryship at the time he left the College (March, 1881), surely it is competent for the Council—comprising, as it does, some of the most prominent practitioners of the Metropolis—to appoint another Secretary, and to see that the various certificates and prizes which ought to be presented to members who have obtained their diplomas, go not the way of so many other "prizes" (?) at the Royal Veterinary College—into the "great unknown," only to be alluded to by future students as something about which they will write a "scorching letter" in the "Journal" after they "get the ticket."

Could not some of the new teachers at the College be induced to take an interest in the matter? Further, is it not a mere duty incumbent upon those who have been entrusted with the management of the Association to take care that it does not lapse for lack of that small amount of energy which would be necessary to revise and carry on the usual weekly meetings, the value of which none will attempt to gainsay who have attended them, and noticed the interest taken in them by the students, to whom they are not least valuable, as affording a good opportunity for acquiring that readiness of reply and lucidity of expression, which even the best among us possess in only too small a degree, but the importance of which in our after practical life cannot be exaggerated?

But I trespass on your space and your readers' patience; so I would only further express a sincere hope that these lines may not have been penned in vain, but that we shall hear, ere long, that the Association is in full swing again, doing its good work as of yore.

Yours faithfully,

"VOX RUSTICA."

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## PUPILS, THEIR VOCATION AND DUTIES: WHAT ARE THEY?

SIR,—So much of late having been said with regard to Pupils, I thought the present a favourable opportunity of relating a few facts in connection therewith, more particularly concerning their duties. Having served a pupilage myself, extending over a period of three years, I think I may safely say that a pupil's life is, on the whole, not an enviable one. We all know different practitioners have different ways of practice, and, as a result, must have different methods of initiating their pupils in the art and science of veterinary medicine and surgery. The question arises, of what nature is the relationship existing between the preceptor and his pupil, and what is the latter to expect from the former, supposing the said pupil to have been legally bound, and at the same time having paid not a small premium for his future curriculum? One would be led to think that he would have every opportunity afforded him of acquiring a thorough knowledge of his profession, both practically and theoretically, as far as the latter were admissible; thus, after seeing cases, it should be the duty of the principal to explain the *pros* and *cons* of the said cases, and not (as I believe is done in some instances) when a case is brought under his notice, merely to instruct his pupil to administer certain medicines, leaving the latter to diagnose for himself the disease from which the animal is suffering. I am of opinion he should be taught the why and the wherefore such medicines are administered;

failing this, the preceptor can expect no satisfaction from his pupil and very little credit to himself. Some pupils, I believe, are compelled, speaking in the language of the vulgar, to "muck out boxes," wash mangers, and occasionally dress horses, etc. This, I should fancy would be part and parcel of the groom's vocation. I do not wish to imply that, in those cases of sickness where absolute quiet is required, these duties should not be performed by the pupil himself, taking it for granted that he is quite capable of performing such duties; but I do think, that when they are of daily occurrence, it is unfair to the pupil, a reflection on his principal, and rather lowers the profession to which he aspires. I trust the foregoing remarks will suffice to show the object of my letter, viz., to raise the "status" of the veterinary pupil.

Apologising, Mr. Editor, for trespassing so much on your valuable space,

I beg to remain, yours respectfully,

"A PUPIL."

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## THE FITZWYGRAM TESTIMONIAL.

WE are requested to intimate that the Committee have decided to present the above testimonial on the afternoon of May 1st, in the Royal College of Veterinary Surgeons.

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## Communications, Books, Journals, etc., Received.

Communications have been received from J. W. T. Moore, Liverpool; J. B. Wolstenholme, Manchester; "Pharmacon," Liverpool; M. J. Treacey, Lancaster, Pa., U.S.A.; H. Leeney, Brighton; J. Ferris, A.V.D., Athlone; T. Greaves, Manchester; L. L. Leach, Boston; J. G. O'Donel, Castlebar; J. Clark, Cupar Angus; R. W. Burke, A.V.D., Woolwich; T. Fraser, Newbury; E. L. Dixson, Margate; T. C. Fletcher, Macclesfield; E. Stanley, Warwick; L. Butters, Liverpool; "Ubique"; W. A. Edgar, Dartford; A. H. Oliver, Devonport; J. Freeman, Hull; "A Pupil"; W. Maynard, Hants; A. E. Macgillivray, Banff; "Vox rustica"; T. H. Simcocks, Drogheda; H. R. Bradshaw, Portrush.

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BOOKS AND PAMPHLETS: *G. M. Beard, A.M., M.D.*, Trance and Trancoidal States in the Lower Animals; *T. Spencer Cobbold, M.D., F.R.S.*, The Parasites of Elephants; *F. H. H. Guillemard, M.A., M.D.*, The Endemic Hæmaturia of Hot Climates; *A. Zürn*, Die Krankheiten des Hausgeflugels; *R. Zangger*, Vorschriften der Veterinär-Polizei-Gesetze und Verordnungen für das Königreich Württemberg.

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JOURNALS, ETC.: *La Clinica Veterinaria; Archir für Wissenschaftliche und Practische Thierheilkunde; Archives Vétérinaires; Annales de Méd. Vétérinaire; Revue Vétérinaire; Lancet; Oesterreichische Vierteljahresschrift für Wissenschaftliche Veterinärkunde; Medical Press and Circular; La Presse Vétérinaire; American Veterinary Review; l'Echo Vétérinaire; Journal de Méd. Vétérinaire et de Zootechnie; Wochenschrift für Thierheilkunde und Viehzucht: Recueil de Méd. Vétérinaire; Edinburgh Medical Journal; Field; Live Stock Journal; Chicago Live Stock Journal; Breeders' Gazette; Mark Lane Express; Agricultural Gazette; Nineteenth Century; Australasian Veterinary Journal.*

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NEWSPAPERS: *Montreal Gazette; Times; Freeman's Journal; St. James's Gazette, Globe; Evening Standard; Newcastle Chronicle; Scotsman; Irish Times.*